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Cover: First Maryland nest of Green-winged Teal,
Deal Island, Somerset County Photo by Henry T. Armistead



FIRST MARYLAND BREEDING OF GREEN-WINGED TEAL

A "NEW" HERONRY, AND OTHER SOMERSET COUNTY RECORDS

Henry T. Armistead

Saturday, June 5, 1971, came early, at 1 a.m., when the alarm sounded at the Oak Terrace Motel south of Salisbury. When I abandon my wife in favor of a full weekend in the swamps, I feel obligated to put in a full day's efforts to justify such folly. A quick breakfast at the nearby English Grill and then off to the marsh roads of Fairmount and Deal Island. The moon was still up, and it was warm and calm—good conditions for Black Rails.

Just before 2 a.m. one of them was calling at the first stop past Fairmount Wildlife Management Area (W.M.A.), a few hundred yards beyond the last trees. Although plenty of Virginia and Clapper Rails were calling continuously, no more Black Rails were heard, and I left the Fairmount Road with counts of 1 King, 14 Clappers, 10 Virginias, 1 unseasonal Sora, and 1 Black Rail.

It was now nearing 3 a.m. and necessary to rush north to the Deal Island Road in order to be on time for the anticipated Black Rail chorus there. This proved much more successful than at Fairmount. Ten Black Rails were heard, all between the mainland and Dames Quarter. Other rallids included 3 Kings, 9 Clappers, and 11 Virginias. This was my first experience listening for Black Rails other than in Dorchester County, Md., or Broadkill Beach Road, Del. These obscure, elusive little birds of the wee hours of the night seem to be at least as common in Somerset County as at these two other prime areas. There have been several records at Irish Grove Sanctuary at the southern edge of Somerset County. I expect that the dike areas edging the unpounded marsh at the Fairmount W.M.A. may also be a good listening spot. I did not have time to check this out on June 5.

As it began getting light a steady stream of herons flew past the south dike of Deal Island W.M.A. from southwest to northeast. Presumably they were coming from some colony out on Smith Island or elsewhere in the central Bay. The flight ceased about 8 a.m., by which time these counts had been obtained: Great Blue Heron 10, Green Heron 11, Little Blue Heron 6, Cattle Egret + Snowy Egret + immature Little Blue Heron 170 (many indistinguishable in the early light), Common Egret 20, Louisiana Heron 50, Black-crowned Night Heron 6, and Glossy Ibis 234. Some of these are sizable counts, even compared with countywide totals I have made during previous years in August.

Late in the morning as I looked over the area at the end of Route 363 I saw large numbers of herons circling around a group of small trees on Little Deal Island about one-half mile south of Wenona. A Glossy Ibis descended into the undergrowth there with a stick in its bill. It seemed almost certain that there was an active heronry. After talking with several Wenona residents I learned that the herons had been using the area for about five years. Mr. and Mrs. Paul Benton, Jr., who run a seafood house nearby, were kind enough to lend me their scow, and I paddled the hundred yards or so across the inlet.

Most of the nests were very well concealed in masses of honeysuckle growing up into a grove of 12-20 foot sumac. By my remaining motionless under the nests, the masses of wheeling herons and ibis eventually settled onto their nests again. The following species were observed incubating: Cattle Egret, Snowy Egret, Black-crowned Night Heron, and Glossy Ibis. Estimates of the birds seen at the colony at the time of the visit were: Glossy Ibis 110, Cattle Egret 25, Black-crowned Night Heron 20, Snowy Egret 15, Louisiana Heron 10, Common Egret 6, Green Heron 4, and 3 each of Great Blue, Little Blue, and Yellow-crowned Night Heron.

The three adult Yellow-crowns were a pleasant surprise. These birds are quite scarce on most of the Delmarva Peninsula. They have been noted during the breeding season at Bombay Hook National Wildlife Refuge and Indian River Inlet, Del., Ocean City and Bloodsworth Island, Md., and Tangier and Mockhorn Islands, Va. However, definite breeding records for them remain practically non-existent in spite of their continuing presence at these locations.

After penetrating to the center of the colony and circling it for about forty-five minutes, I hastily departed. It was midday, clear, and the temperature was in the low 90's. No young birds had been visible, so the nests must have contained very small young or eggs. In either case they would be susceptible to overheating, although most of the nests appeared partially shaded. It is difficult to estimate numbers in a colony where the nests are well-concealed, ten species are present, and many birds are feeding several miles distant. The estimates of birds seen at the colony compared to those seen coming from the colony to feeding areas at dawn gives a rough indication that from 100 to 270 pairs were present.

The principal plants in the heronry area are honeysuckle and Winged Sumac (*Rhus copallina*). Other plants present were Poison Ivy, Bayberry, Phragmites, grape, cherry, Trumpet Creeper, and poplar. The east side of the colony is a typical tidal marsh with rich growths of Salt-water Cordgrass (*Spartina alterniflora*), Salt-meadow Grass (*S. patens*), and Groundsel-tree (*Baccharis halimifolia*). On the west is sandy beach and Chesapeake Bay. Mammal tracks noticed were those of raccoon, deer, dogs, and man. Mrs. Benton said that red foxes were sometimes seen on the island. The following birds were represented by individuals apparently breeding or on territory in the area: Common Crow (flightless juvenile present), Carolina Wren, Catbird, Yellow Warbler, Red-winged Blackbird, Boat-tailed Grackle, Cardinal, and Song Sparrow. In the

nearby marsh were calling Clapper Rails, Long-billed Marsh Wrens, and Seaside Sparrows. Other birds present, some undoubtedly attracted by the prospect of prey or carrion, included: Turkey Vulture, Great Black-backed Gull, Herring Gull, Ring-billed Gull, Laughing Gull, Fish Crow, and House Sparrow. This colony has apparently remained unnoticed to the birding fraternity until now, although it has existed for several years according to some of the persons living nearby. Little Deal Island is uninhabited, but contains the remains of former dwellings.

Another exciting event occurred about 3 p.m. when I was walking the closed section of the dike connecting the impounded areas at Deal Island W.M.A. A female Green-winged Teal flushed from the *Spartina patens* along the side of the dike (Figure 1). The nest with five eggs was



Fig. 1. Site of Green-winged Teal nest on edge of diked impoundment

easily found at the marsh edge although partially concealed by the tops of the Salt-meadow Grass (which have been pulled aside in the cover photo). This is the first published Maryland breeding record, although in all likelihood Green-wings have previously nested on the Eastern Shore. Areas such as Fairmount and Deal Island W.M.A. seem to be ideal habitat for small numbers of them. They have been seen several times before at these locations in mid-summer. Later in the day on June 5 I saw another female at Fairmount W.M.A.

Within the past decade there have been definite breeding records at Bombay Hook and Little Creek refuges in Delaware. Although there are summer records from Chincoteague and Back Bay refuges in Virginia, there do not seem to be any definite breeding records south of Deal Island, except for a brood of young at Chincoteague Refuge some six or seven years ago (Frederic R. Scott, pers. comm.). Such records may develop soon. The present nest, then, is situated in an area similar to others at the extreme southeastern limit of the Green-wing's breeding range: a large,

impounded refuge marsh. After discovering the nest I carefully marked its location and returned to the car to get a camera. Upon returning about forty minutes later, I found the bird was not yet back on its nest. I used the last few remaining exposures and quickly departed.

Several Pied-billed Grebes had been calling earlier in the pre-dawn darkness. I was not surprised to see one sitting on a mound of dead marsh vegetation soon after sun-up. A short while later I saw another one on a mound. Almost surely these were occupied nests. Never having seen one closely, I took off across several hundred yards of channels, submerged shrubs, and rotting algae, wading staggering, sinking to my neck fully dressed, and then in water over my head, paddling with one hand and holding the camera above the surface with the other. Naturally, after this performance the incubating bird had long since slid off its nest by the time I arrived and found the three eggs, which had been carefully covered with dead grasses. I uncovered them, took several pictures (Figures 2 and 3), re-covered them, and quickly left. By the time I struggled back to the car, the grebe was once more on its nest incubating. Later that day I saw three more mound nests for a total of five.

Some of the impoundments are so large that it is impossible to see what is in the center of them, even with a 25X telescope, so there may have been numerous other breeding pairs present. There are several other breeding records of Pied-bills on the Delmarva Peninsula (Bombay Hook, Little Creek, and Chincoteague refuges as well as Worcester County, Md.), but there are few for Maryland's Eastern Shore, especially ones with egg data. Except for records of downy young at Lake Roland near Baltimore, and in Worcester County, almost all Maryland nesting records are from the Patuxent Wildlife Research Center near Laurel. These birds seem to favor impounded marsh areas. They have probably been fairly common nesters at Deal Island for several years judging from the large numbers that have been seen there in mid-August.

39 Benezet Street, Philadelphia, Pa.

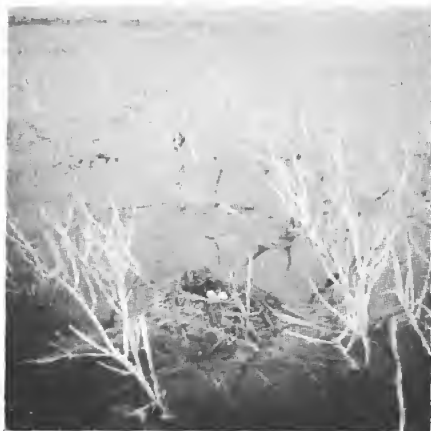


Fig. 2. Pied-billed Grebe nestmound in impounded pond



Fig. 3. Looking directly down on same Pied-billed Grebe nest at Deal Island

ARIZONA ADVENTURE

Edwardine G. Slaughter

Although the afternoon sun blazed hot and brassy bright upon our arrival at the Westward Look Inn on the outskirts of Tucson, an inviting breeze rustled through the desert brush and briskly fanned the palm, eucalyptus, and other ornamental trees and shrubbery that landscaped our motel oasis. And birds were everywhere!

Wasting no time we hurriedly unpacked birding gear and garb, strung ourselves along a shaded walkway at the periphery of the motel complex, and, under the expert tutorage of leader Jim Tucker, began identifying new species one after another—a mid-winter's dream come true.

This was the day we had been eagerly anticipating since the previous fall when plans for an Arizona trip began to take shape. As coordinator of the trip, Shirley Geddes had spent much of the winter and early spring meticulously attending to the countless details involved. Her diligence resulted in a beautifully planned and smoothly executed tour enjoyed tremendously by everyone. But the responsibility was hers alone, and we all are most appreciative of our excellent "Tour Director." Shirley has, in fact, become known as Mother Squail (Gambel's Quail, that is) and we—Ed and Ida Unger, Rose Gerringer, Barbara Larrabee, Ono Lescure, Erana Lubbert, Grace Naumann, Phyllis Ravesies, my husband Chris and I—have been dubbed the Little Squails.

On a typical Maryland morning in late May (the 22nd) ten of our party assembled at Friendship Airport for departure on a 10 a.m. flight to Tucson via Dallas. Erana Lubbert, who was visiting in Phoenix, was to join us in Tucson. Bringing greetings and good wishes from Gordon MacGregor, President of the Baltimore Chapter of MOS, was Nancy Rowe, immediate past president, who came to see us off. She and her husband, Josh, had birded southeastern Arizona on their own several years ago, and Nancy knew well the pleasures that awaited us. She photographed the pre-flight exuberance of our group and the take-off of our jet, streaming air pollution.

After enjoying an early lunch en route to Dallas and then another on the transfer flight, we deplaned in Tucson shortly after 1 p.m., Arizona time, both overjoyed and overfed.

From Austin, Texas, Jim Tucker had driven up (checking out some rare bird reports on the way) and was at the airport to greet us with a warm western welcome. Jim's enthusiastic reply last winter to Shirley's enquiry about the possibility of his leading the trip had sparked even greater excitement over the venture.

This was the first western birding trip for most of our party, and the specific area that we were to cover would be new to all of us (see map). We were particularly hopeful of finding some primarily Mexican species that occur in the United States only, as a rule, in the southeast-

ern corner of Arizona (and the southwestern corner of New Mexico). But just about every western species would be a life bird for some of us.

So here we were, finally, in Tucson where we were to spend the first two days of the tour in the Sonoran Desert region. The Westward Look Inn is set in the midst of a giant (saguaro) cactus grove that stretches to the sun-baked foothills of the Santa Catalina Mountains, which rise sharply against the horizon to the northeast. On the desert, creosote-bush, palo verde, catclaw, various smaller cacti, and other desert plants provide brush cover between the saguaros—grotesque, treelike cacti that grow up to forty feet or more and may live an estimated 250 years. This habitat typifies the arid Lower Sonoran Life-zone. Along watercourses, mesquite and cottonwood also are found.

Birds were all around—flying overhead, flitting among the saguaros, darting through the brush, and visiting the feeder nearby—seemingly unaware of, or at least undisturbed by, our presence.

Our very first western species was Gambel's Quail (the prototype Mother Squail), teardrop plume nodding as she cautiously rounded a prickly pear. White-winged Doves questioned endlessly who-cooks-for-you, and there were the less inquisitive Inca Doves softly coo-cooing. Swiftest of the swifts (or probably of any other American bird) the White-throated zipped across the sky. Gilded Flickers and Gila and Ladder-backed Woodpeckers undulated to and from the saguaros in which many nesting holes had been dug. Wied's Crested Flycatcher swooped down in pursuit of his dinner, while Violet-green Swallows traced fleeting silhouettes against the vividly blue sky. A small Verdin foraged to meet the incessant demands of three hungry, begging fledglings in a palo verde. On the ground the raucous Cactus Wren gleaned insects from the front bumpers of our cars, and Curve-billed Thrashers whistled their brash schoolboy whist-wheet! In the trees and shrubbery around the motel grounds we saw a Black-tailed Gnatcatcher; Phainopepla (the male a handsome silky black for which he is appropriately called "shining robe"); the bright orange Hooded Oriole; Bronzed Cowbird; the colorful Western Tanager; and, no, *not* a female Cardinal this time, but the striking male Pyrrhuloxia! And we had Black-headed Grosbeak, Brown Towhee and Black-throated Sparrow.

At the feeder together there were Gambel's Quail, Curve-billed Thrasher, Pyrrhuloxia, and Black-throated Sparrow in view at the same time.

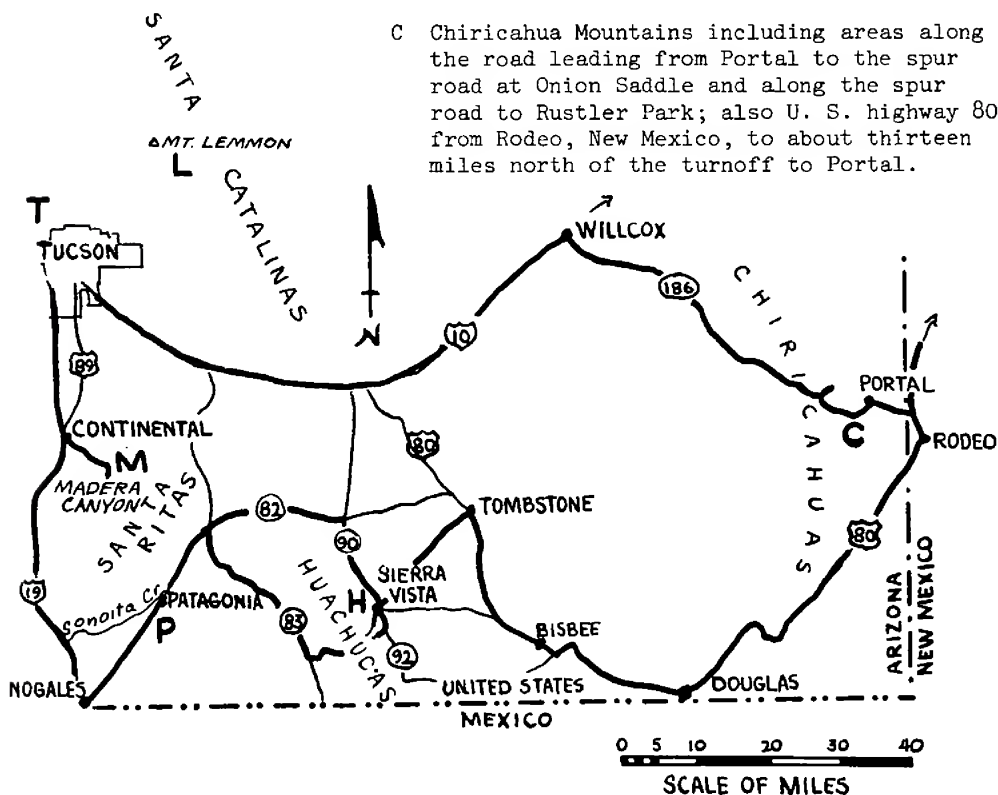
What a thrilling introduction to birding in Arizona! Within our first few hours in this most unique of all western habitats, we had seen, in addition to several familiar species, twenty-one new birds! (All species found in each locality are given in the accompanying field list.)

On Sunday, our first full day in the field, we drove from the harshly arid desert up into the richly verdant majesty that is Mount Lemmon, towering 9,185 feet in the Santa Catalina Mountains which, together with the Rincons to the south, comprise the southernmost extension of the Rocky Mountains. From desert to mountaintop the road passes through four life zones: Lower Sonoran, Upper Sonoran, Transition, and Canadian. As

SOUTHEASTERN ARIZONA

The six major birding regions visited, each designated on the map by a capital letter, are:

- T Tucson and environs including the Desert Museum, San Xavier Mission, and farmlands south of town.
- L Mt. Lemmon in the Santa Catalina Mountains northeast of Tucson.
- M Madera Canyon in the Santa Rita Mountains including areas on either side of the road leading out of the town of Continental.
- P Patagonia and Sonoita Creek including areas on either side of the creek and of state highway 82 between Nogales and Patagonia.
- H Huachuca Mountains off state highways 82 and 83, and Ramsey Canyon south of Sierra Vista.
- C Chiricahua Mountains including areas along the road leading from Portal to the spur road at Onion Saddle and along the spur road to Rustler Park; also U. S. highway 80 from Rodeo, New Mexico, to about thirteen miles north of the turnoff to Portal.



it climbed we began to add new birds in keeping with the changing habitats. First, cottonwood intermixed with the saguaros, then the chaparral area of oak, juniper and manzanita found in the Upper Sonoran zone at an elevation of 3,500 feet. In a wooded gorge we saw Costa's and Broad-tailed Hummingbirds; Western Kingbird; Ash-throated Flycatcher; Black Phoebe; Western Wood Pewee; the clarion-voiced Canyon Wren, whose cascading song pouring rapturously through the canyon was absolutely electrifying; Rock Wren; and Scott's Oriole.

Farther up into the live oak belt at an elevation of about 4,300 feet, we found Red-shafted Flicker, the clownfaced Acorn Woodpecker, Coues' Flycatcher, Mexican Jays (stealing eggs from the nest of Solitary Vireos despite the valiant efforts of the vireos to chase the robbers), Bridled Titmouse, Bewick's Wren, Western Bluebird, and Hutton's Vireo.

At 7,000 feet elevation the ponderosa pine belt of the Transition zone predominates. Here were Steller's Jay; Mountain Chickadee (our only opportunity to get this species which has a white streak above the eye and is the common breeding chickadee of the Rocky Mountains); Pygmy Nuthatch, creeping down the trunk of a ponderosa pine into its nesting hole; Olive, Audubon's, Black-throated Gray, Grace's, and Red-faced Warblers, Painted Redstart; Hepatic Tanager; and Mexican Junco. Among familiar species an Evening Grosbeak was a rare bird.

At 8,200 feet elevation the fir forest representing the Canadian Life-zone begins, and we found Western Flycatcher. Continuing on up to the end of the road at Summerhaven, we lunched in a small alpine cafe. Afterwards, inhaling deeply the crisp, clean scent of the incredibly clear air, we reveled in the sound of wind song and the refreshing beauty as, out of the intensely blue skies, a vigorous breeze churned the viridian branches of stately Douglas fir and white fir and ruffled the pale, trembling leaves of the quaking aspen. No birds—just mountain-top magnificence!

Our leisurely descent on the way back to Tucson by the same route afforded the opportunity to enjoy more fully the truly spectacular views.

At dinner that evening we switched from bird to celebrity watching. Paul Newman, Joanne Woodward and their two young children were also guests at the inn. First we watched as Paul and the children left the swimming pool. (Yes, he *is* athletically built.) Later they all came in to dinner, Joanne wearing a fitted green midi-length dress, her blond hair pulled severely back into a free-swinging ponytail. (Yes, she *is* beautiful.) Paul wore white slacks and a light blue jacket—to match his eyes? (Yes, his eyes *are* really that blue.) The children were very wellbehaved. (No, we didn't intrude on their family privacy.)

Score for the day, two celebrities; twenty-nine new birds!

Leaving Tucson on Monday morning, we spent several hours at the extremely fascinating Arizona-Sonora Desert Museum, viewing the superb displays of living animals and plants and natural resources of the region.

In the natural habitat, walk-in bird enclosure, we fortunately happened to notice a pair of Roadrunners gathering sticks for the nest they were building just above the ground, deep in the center of a large bush.

One could spend endless hours at the Desert Museum, but our time was limited as, following lunch at the museum, we planned to stop at the San Xavier Indian Reservation and Mission on our way to Madera Canyon.

The San Xavier Mission, gleaming pristine white against the blazing blue sky, was most impressive, and a stark contrast to the dull, scorched browns of the surrounding reservation. Inside the mission a small room, where articles made by the Indians were offered for sale, led into the narthex, in which there was a display of holy relics—from bones of the martyrs to accoutrements of the hierarchy. Votive candles flickered wanly at the feet of the saints within the dimly illumined sanctuary, quiet, cool, and mystically evocative. And for physical replenishment there was a drinking fountain of deliciously cold water in the outer room.

Birds were scarce as the day was extremely hot—100° at the Desert Museum at noon. We got no new birds at the museum or at San Xavier, but while traveling we did see Cassin's Kingbird, Abert's Towhee, and, most exciting, our one and only Roadrunner (outside captivity). Sighted in the underbrush, it caught a lizard and raced across the road, lizard dangling from its beak—exactly as usually pictured!

It was late in the afternoon when we reached Madera Canyon in the Santa Rita Mountains. Although it was still quite warm even at the higher elevation, it seemed cool to us after the intense heat of the desert.

The Santa Rita Lodge, where we were to spend three nights, provides a multiplicity of bird feeders of assorted kinds and sizes, and we gratefully sat around in the shade for several hours before dinner watching the birds at the feeders. Black-chinned, Anna's (one), Rivoli's, Blue-throated, and Broad-billed Hummingbirds darted to and fro between the bottles of red-colored sugar water; the brown Arizona Woodpecker was there, and the Black-headed Grosbeak (seen first in Tucson) was so common as to be soon referred to as another you-know-what.

After dinner at the lodge we went owling. Elf Owls obligingly nest in two telephone poles on the grounds and were readily observed by flashlight after dark. Birders frequently bring equipment here to record the Elf Owl calls. But even more thrilling was a short trip up into the canyon where, in the moonlit silence, Jim Tucker hooted with such expertise as to elicit prompt responses from several directions. Jim, spelled by a tape recording, soon lured a small Whiskered Owl into the tree beneath which we were waiting. There it sat in full view on a branch six or eight feet above our heads for ten minutes or more, lifting its head expectantly as Jim called, and peering down curiously into the lantern light. Ed Unger, making squeaking noises from the ground, was suddenly attacked as this small but courageous sprite swooped down to investigate what it probably hoped was a rare Eastern Mouse! With that, it disappeared. Jim continued to call, but there was no further response from the possibly dis-

illusioned little owl. We waited a while longer but heard no more owls, so reluctantly we returned to the lodge.

Eleven new birds including a Roadrunner, five hummingbirds, and two owls made this a very rewarding day.

Tuesday morning we started out bright and early with box lunch for the Patagonia area. Again the day was unusually hot and breezy. Ordinarily Arizona's hottest period is June into July until the dry season is broken by a weather pattern of afternoon thundershowers which makes the desert bloom again as in early spring. But at least it was only the heat, not the humidity, and there were lots of birds.

The Patagonia - Sonoita Creek region is representative of the Lower Sonoran zone, with yucca, cactus and ocotilla among the shrubs on the rocky hillsides, and sycamores, cottonwoods, mesquite, willows, and other riparian growth along the creek.

Here we added Band-tailed Pigeon; Ground Dove; Olivaceous, Vermilion, and Beardless Flycatchers; Bell's Vireo; Lucy's, Townsend's, and MacGillivray's Warblers (an extended, close view of the MacGillivray's in a low shrub, a male in brilliant plumage, similar to our Mourning Warbler and usually just as difficult to observe, but Jim got to within ten feet or so of the bird before it moved out of sight); a female Lazuli Bunting and the rare and local Varied Bunting—a pair, silhouetted against the sky in an ocotillo on the crest of a rocky ridge, the red on the head of the male discernible, though his body looked dark against the sky; and Lesser Goldfinch. Among a number of familiar species were Swainson's Thrush, Wilson's Warbler, Summer Tanager, Blue Grosbeak, and White-crowned Sparrow. Twelve new birds including the prized Varied Bunting, so who minded the heat?

On Wednesday we planned to bird Madera Canyon beyond the Santa Rita Lodge. As the day wore on it became increasingly hot and windy, and we decided after lunch at the lodge to take a brief siesta and go out again later in the afternoon, hoping it would become cooler and less windy. It did not, but we were able to get four new birds nevertheless—Sulphur-bellied Flycatcher, Townsend's Solitaire (probably a late migrant), Rufous-winged and Rufous-crowned Sparrows—not too bad for a hot, windy afternoon.

The longest single trek of the tour began at six o'clock on Thursday morning when we left the Santa Rita Lodge and headed for the Southwestern Research Station in the Chiricahua Mountains, our evening destination. Retracing our route to Patagonia, we continued on over the Huachuca Mountains to Tombstone, then through Bisbee and Douglas to Portal and the Research Station, a full day's journey. Between Madera Canyon and Patagonia we added Lark Sparrow, and later, while traveling through the grasslands, we got Say's Phoebe. But most exciting of all were two of our rarest finds, both in the Huachuca Mountains: White-eared Hummingbird at Ramsey Canyon on the eastern side of the mountains and Buff-breasted Flycatcher on the western side. And over the latter we came to a brief parting of the ways.

Some of us chose to detour on Route 83 to an unimproved mountain road that led up into the still, secluded retreat in which the very small Buff-breasted Flycatcher, hopefully, was nesting. Jim had scouted the area the day before meeting us in Tucson, and assured us that the bird would be there. And there it was! Three good views of it: profiled on a weed stalk; full-fronted—the decisive view—in a bush some thirty-five feet ahead of us; and then, farther away, sitting with his back to us, on a low branch of an oak. The buffy wash on the breast and belly was unmistakable, and the crown and back were decidedly brown—not really much to look at, but a life gem nevertheless; as Jim said, last year's nesting was reported to be the first in Arizona in the past twenty years. Lingered to observe this tiny rarity at leisure would have been pleasant; however, time was short so we left the Buff-breasted to his solitude.

Cautiously we negotiated the worsening road up to the crest of the mountain, stopping at Montezuma Pass to marvel at the breathtaking vistas before beginning the somewhat perilous descent—a narrow, deeply rutted and rocky trail, hairpinning down the boulder-strewn mountainside. The drops were sheer; the views spectacular! Gradually the trail widened into a road once more. We resumed breathing and sped on to Ramsey Canyon, south of Sierra Vista, to rejoin those members of the party who had opted for Route 82 (a less exciting way over the Huachuclas) at the hummingbird feeders of the C. A. Peabodies at The Mile Hi.

The others had arrived an hour or so earlier, had enjoyed watching the myriad hummers coming to the numerous feeders, and had even glimpsed the coveted White-eared. We lost no time in positioning ourselves for fullest coverage of the choice feeders and eagerly inspected every bird showing any semblance of a white stripe on the head or an orange bill. Most, of course, turned out to be Broad-billeds, and we were verging on despair when Mrs. Peabody *heard* a White-eared (amid that polyphony of twitterings, skitterings and chatterings) and led us directly to a tree in which a resplendent male perched on an exposed branch, perhaps thirty feet high and equally distant, with the back to us and his head turned to give us the most perfect view of his red-orange bill and white ear stripe—long, broad, distinct, and definitive!

With much gratitude to him and to Mrs. Peabody for her super-keen ear, we departed happily for Tombstone and for lunch.

Following lunch in a delightfully cool, dim restaurant (relief from the desert heat and glare was indeed welcome), we wandered the streets of Tombstone, relic of the Old West, land of Wyatt Earp and of Boot Hill Cemetery—tourist oriented, but still a fascinating little town only a few blocks long. Continuing southeast on state highway 80, we stopped briefly in Bisbee at the Lavender Pit Mine, said to be the largest open pit copper mine in the world, just in time to watch them clear the pit of workmen and detonate a charge of dynamite. And it was quite a blast.

At Douglas route 80 angles northeast, slanting up through the grasslands of the San Bernardino Valley. Formerly Apache lands—domain of the honorable Cochise and of the renegade Geronimo—seemingly endless stret-

ches are broken only by an occasional windmill marking a homestead. Dotted here and there with grazing Herefords and Brahmas, these are now the vast ranch spreads of the Arizona cattle country.

Just south of Rodeo (a prototype small western town) the highway cuts into New Mexico. Just past Rodeo is the turnoff to Portal, gateway to the mountains, through which we entered the magnificent Chiricahuas.

Exclamations of wonder were soon quieted, for the grandeur of Cave Creek Canyon inspires a speechless awe. In his delightful book, *Sky Island*, Weldon F. Heald (a former owner of the ranch which is now the site of the Southwestern Research Station) describes the canyon thus:

The way threads the wooded depths beside the musical stream. Above on either side tower sheer cliffs, topped by crenellated battlements and groups of slender columns, while yawning caves, arches, and windows have been carved into the stone by centuries of wind, rain, frost, and melted snow. The rock, called latite, is of volcanic origin and glows with soft shades of orange, pink, yellow, and deep salmon as if it had been daubed by a giant paintbrush. The most striking single feature is Cathedral Rock, a massive monolithic wedge on the east wall, 2,000 feet high. The canyon floor is pleasantly sylvan, with oaks, sycamores, pines, and junipers shading a tangled under-story of greenery almost as luxuriant as the tropics, after generous summer rains.

Esthetically our arrival was perfectly timed, as the colors of these rugged mountains are utterly fantastic in the mellow light of the lowering sun; prosaically we were half an hour late for dinner, as the Research Station operates on Daylight Saving Time (though Arizona as a whole does not). The bell is rung and meals are served, cafeteria style, on the appointed hour, regardless of the non-arrival of expected guests! But there was ample food and it was delicious.

After dinner the director, Mr. Vincent Roth, conducted us on a tour of the laboratory and briefed us on its function. The Southwestern Research Station of the American Museum of Natural History is operated as a field station and laboratory for scientists and students who are studying the flora and fauna of the area.

In addition to the new, well-equipped laboratory there is what may be the oldest house in southeastern Arizona, a log cabin built by Stephen Reed who homesteaded the ranch in 1879. He was presumably the only white man in the Territory on friendly terms with the Apache chief, Geronimo, who is said to have visited and even camped with his braves at the Reed place. The main house, built in the 1930's as a summer home by a copper company executive, now serves the scientific community as lounge, kitchen and dining-hall, where all in residence gather for meals. There are groups of cottages and rooms in which the visiting scientists and their families are housed, and in which transients such as we are accommodated if any rooms are available (reservations must be made well in advance). There is also a lovely little swimming pool fed by a 72°

spring. Altogether a delightful community, set in a deep, wooded basin, the huge crater of a long-extinct volcano, encircled by the jagged rim that rises another thousand feet or more into the skies.

We slept that night lulled by the soothing sound of wind roaring through the Chiricahua trees like waves rushing upon the Ocean City beach!

Although at an elevation of 5,340 feet the Research Station is basically in the Upper Sonoran Life-zone, there is much ecological intermingling. Growth typical of the Lower Sonoran—particularly ocotillo—as well as the pines, cypress, deciduous oaks, ashes, and maples of the Transition Zone are inter-fingered with the oaks, alligator junipers, orange-flowered agaves, and, along the stream, sycamores, walnuts, willows, and cottonwoods indicative of the Upper Sonoran Zone.

On Friday morning we headed up the mountain to Rustler Park, which at 8,500 feet elevation is well into the Transition Zone. Beneath the ponderosa pines lovely purple lupines bordered the roadside, and there were some marvelous views out over the San Simon Valley along the way. The weather was gorgeous, as usual, crisply cool (the temperature is said to drop about 1° F. for every 300 feet in altitude) but, again, it was somewhat windier than birders prefer.

We lunched at Rustler Park on the substantial fare the cook had packed for us—loaves of bread, pounds of lunchmeat and cheese, jars of peanut butter, pickles, and spreads, large bags of spicy, home-made cookies and crunchy, red apples, cold soft drinks—served pitch-in-and-fix-your-own style, which we did with great gusto.

Thus fortified we set out on foot, choosing a fork in the road that led to a meadow abloom with wild Rocky Mountain iris. Broad-tailed Hummingbirds were sipping from these delicate blue blossoms. Later in the summer this same meadow is said to attract hundreds of Rufous Hummingbirds to feed on the six foot high Chiricahua delphiniums.

Most of the birds were species that we had previously seen on Mount Lemmon; however we did add the Mexican Chickadee, which replaces the Mountain Chickadee in the Chiricahuas (and looks just like a Black-capped only smaller), and on the way down the mountain we got the Common Bushtit. As our cars rounded a bend on the descent, we came upon a pair of coatis (coah-tea) roaming the mountainside. Startled, they took off—long, brownish, furry bodies twisting as they scampered up the rocky slope with their longer banded tails held stiffly erect. Members of the same family as the raccoon, they look, as Weldon Heald noted, like a cross between a monkey, cat and anteater, if that were biologically possible!

That evening after dinner we gathered on the central lawn of the Research Station to watch the hummingbirds swarming around the feeders, together with other birds having a taste either for sweets or for the insects drawn to the sugar-water. One of these was a Wied's Crested Flycatcher, making swooping sallies from a tall tree at one side of the lawn down to the feeder and up again to a perch on the opposite side of the

area. We paid him no special attention until suddenly, as he zoomed down to a feeder, he caught—to our horrified amazement—not an insect, but a hummingbird! As he reached the far side he dropped the bird (probably a Black-chinned, the smallest species at the feeder) which flew away, and was himself scoldingly harassed by a Western Tanager that had been feeding with the hummingbirds. Nevertheless the flycatcher immediately resumed his forays, as oblivious to the shouting and frantic arm-waiving of several dismayed humans as he was to the scolding of the Western Tanager. Mr. Roth came over to see what all the commotion was about, and promptly summoned a visiting writer-photographer to attempt to photograph the flycatcher in the act, admonishing us not to allow our emotions to interfere, but to observe with scientific curiosity this heretofore unrecorded behavior in a flycatcher.

Appalled and apprehensive, we watched hypnotically as again and again the Wied's swung back and forth until with a sharp snap his bill closed on another small hummingbird. Dashing off into the woods, he, we assume, ate it. No trace of the hummingbird was found, though Jim searched the area; nor did the Wied's return to the feeders again that evening. We were told that this behavior had been noted by other observers a few days earlier. There was some theorizing that such unheard of behavior might be a result of the excessively dry season causing a dearth of the insects upon which the flycatchers normally feed. Whatever the cause, we non-scientists found the episode to be singularly repulsive, and we felt somehow responsible for the inadvertent death of one small hummingbird.

New birds added that evening were Lincoln's Sparrow, a very late (May 29) migrant as most Lincoln's go through this area in March; later on we heard Poor-will and saw Lesser Nighthawk.

On Saturday morning we set out to seek the legendary Coppery-tailed Trogon, only species of the family Trogonidae known to breed in the United States—status symbol supreme. Though we spent the entire morning looking, listening, and hiking nearly three miles into South Fork Canyon following reports of recent sightings, and though Jim called and used a tape recording of the bird's own call, we were rewarded with only one faint, far-off call and a brief, distant glimpse of the bird in flight (seen by only one member of the party). As we were due back at the Station for lunch at noon, Jim decided to call off the trogon hunt for the day and to return very early the next morning.

That evening we drove north on route 80 to Cienega Lake, maintained by the United States Soil Conservation Service as a nesting site for the Mexican Duck, another rare bird that we hoped very much to find. The lake, we found, was closed during the nesting season, but we had the great good fortune of spotting a pair of ducks in an irrigated field where standing water provided a very shallow pond-like area just off the highway. Screeching to a halt (one tends to ignore speed limits on these straight, flat western highways where there is little traffic) we were out of the cars and up to the barbed wire fence quickly enough to be rewarded with a good binocular view of the ducks at about fifty feet for several minutes before they flew off across the field and dropped down, first at some distance and

then out of sight. They were indeed the rare Mexican Duck. Both sexes look much like the female Mallard, but the Mexican Ducks have unmarked yellow bills (orange mottled with black in the female Mallard).

As we returned on highway 80 toward Rodeo, we got Swainson's Hawk; Scaled Quail; and White-necked Raven, obligingly sitting on a stump with its back to us and to the wind, which ruffled the feathers sufficiently to expose the white of its neck. In Rodeo, where we stopped for gas and refreshments shortly before dusk, the trees around the cluster of houses that comprise the town were alive with birds, and we added Bullock's Oriole, found nesting in a tree beside the road. A most profitable evening, well worth the hurrying through dinner in an allotted fifteen minutes!

At the Research Station, Sunday morning breakfast is served at eight o'clock, but no Maryland birder fledged under the wing of Chan Robbins could imagine breakfasting at such an hour, unless one had been owling or dawn chorusing! So Jim, equally energetic and pleasantly astonished at our eagerness to rise before the sun, made arrangements with the cook for coffee and doughnuts at 5:45 a.m., and we were on our way to South Fork Canyon shortly thereafter to try once again for the elusive Coppery-tailed Trogon. The thermometer registered a chill 38° but, fortunately, the wind had also dropped considerably.

Dressed in our drabbest (trogons are wary of bright colors) we filed silently (trogons are wary of any noise) along a narrow path that trailed the stream-bed through the understory, halting now and then to stand perfectly still (trogons are wary of sudden movements) while Jim played their recorded call and vocalized some improvisations of his own in hopes of eliciting a response that would direct us to the bird, or bring the bird to us. As the sun began to warm the tops of the ridges, a trogon called, faint and distant, from, Jim thought, just over the crest of the slope on the far side of the canyon. Jim called; the trogon answered. Jim called again and *another* trogon answered, and we then had two birds gradually working down the far slope toward us. Just about when they reached the tops of the trees of the canyon floor, the birds took off in opposite directions, one flying far down the canyon in the direction from which we had come, the other sounding closer but farther up into the canyon. Jim decided to try for the latter, so we hiked another quarter of a mile into the gorge. All the while Jim was calling and several trogons seemed to be responding from up in the canyon. We felt certain that there were at least two and possibly three or four birds in the area—hopefully paired and nesting.

Several members of our party had caught brief glimpses of one of the birds, possibly the female, as it flitted through the trees and flew down the canyon, and Jim spotted a male perched in a tree at fairly close range; however, none of the others of us got a look at him before he took off, deeper into the canyon, but right across our path. The flank on our side of the gorge was sheer, rising quite close to the trail, and we hurried on with heightened anticipation. Suddenly the bird darted back across the path. Jim spotted him immediately on a branch close to the trunk of a tree less than fifty feet ahead of us. And I saw him! A handsome male,

perched erect with his back toward us—bronzy green with the long, bright coppery tail, black-tipped and square-cut; his head turned showing the heavy yellow bill and the red-orange eye ring. As I held my breath watching, he dropped down through the tree, his brilliant belly flashing crimson in the sun-shaft that spot-lighted him beautifully for one revealing moment—then he was gone, leaving me gasping for breath. A most exhilarating climax to my most exciting bird hunt!

Though we followed him a bit farther, the trogon was not sighted again. Since our time was short we reluctantly turned back on the trail, pausing now and then to observe the Painted Redstarts and other birds we had neglected earlier in our intense concentration on the trogon, and to admire the lovely yellow columbine that bloomed in sparse clumps along the stream bed, dry at this time of the year except for a small pond or puddle here and there.

Back at the Research Station once more, we gathered in the shade of a large willow near the swimming pool to go over our lists and count our totals. Individual members of our party added from forty-nine to ninety-one new life birds out of a total count of one hundred and forty-six species—most gratifying!

Then it was time to take regretful leave of Jim, who was returning directly to his home in Austin, say our goodbyes to the folks at the Research Station, and head once again up the mountain. This time we continued on to the Chiricahua National Monument, where we ate our picnic lunch. The grotesque rock formations here are simply incredible. From the monument area we left the Chiricahuas, taking state highway 186 to Willcox, then Interstate 10 back to Tucson and the Westward Look Inn, coming full circle in nine days and some nine hundred miles of traveling.

No new birds were added on our return trip, but Jim wrote that as he reached Portal a Golden Eagle was soaring lazily over the desert—a fittingly majestic bird with which to end a fabulous birding experience in truly spectacular country, even though we saw it only in spirit!

We left Tucson on Monday morning for Baltimore via Chicago on our return flight. The pale, sun-baked desert and the rugged red-brown mountains soon gave way to green and gold plains as we flew northeast, but we remained completely under the spell of the fantastic land that is southeastern Arizona.

In closing I must add a word about our expert leader. James A. Tucker is Secretary and Treasurer of the American Birding Association (P.O. Box 4335, Austin, Texas 78751) and Editor of *Birding*, the association's bi-monthly journal. Quoting from the inside cover of *Birding*: The American Birding Association exists for the sole purpose of promoting birding as a hobby and a sport and to assist its members in their pursuit of this popular activity. Dues are: Individual, \$5; Family \$7.50; Contributing \$15 or more per year; Life \$100.

SUMMARY OF TEN DAY BIRDING TOUR IN SOUTHEASTERN ARIZONA

May 22 - 31, 1971

Each of the 146 species listed below is followed by a description of its status in the regions in which it was recorded (see map, page 117). The relative abundance of each species, determined by Jim Tucker, applies only to the time of the tour; there is, of course, both seasonal and annual variation in abundance.

Designations are: c - common to abundant; u - uncommon; r - rare.

<i>Species</i>	<i>Status</i>	<i>Species</i>	<i>Status</i>
Pied-billed Grebe	u P	Red-shafted Flicker	c L M P H C
Snowy Egret	r T	Gilded Flicker	c T
Ring-necked Duck	r T	Gila Woodpecker	c T P
Mexican Duck	r C	Acorn Woodpecker	c L M P H C
Turkey Vulture	c T L P M	Ladder-backed Woodpeck.	u T M P
Cooper's Hawk	u L	Arizona Woodpecker	u M H C
Red-tailed Hawk	c T M P H C	Western Kingbird	c L P H
Swainson's Hawk	u C	Cassin's Kingbird	c T M P H C
Golden Eagle	r C	Sulphur-bel. Flycatcher	u M C
Marsh Hawk	r M	Wied's Crested Flycat.	u T P C
Sparrow Hawk	c T M P H C	Ash-throated Flycat.	c T L M P C
Scaled Quail	u C	Olivaceous Flycatcher	u P C
Gambel's Quail	c T M	Black Phoebe	c L M P H C
Common Gallinule	u P	Say's Phoebe	u H C
American Coot	c T P	Western Flycatcher	u L M P H C
Killdeer	c T C	Coues' Flycatcher	u L C
Spotted Sandpiper	u T	Western Wood Pewee	c L M P H C
Band-tailed Pigeon	u P H C	Olive-sided Flycatcher	u P C
White-winged Dove	c T L M P H C	Vermilion Flycatcher	u P
Mourning Dove	c T L M P H C	Beardless Flycatcher	u M P
Ground Dove	c T P	Buff-breasted Flycat.	r H
Inca Dove	c T P	Horned Lark	c P H
Roadrunner	u T C	Violet-green Swallow	u T L M C
Whiskered Owl	c M	Tree Swallow	u T
Elf Owl	c M	Barn Swallow	c P
Whip-poor-will	c M C	Cliff Swallow	u P
Poor-will	u C	Purple Martin	u C
Lesser Nighthawk	c T C	Steller's Jay	c L C
White-throated Swift	c T L M P H C	Mexican Jay	c L M P H C
Black-chinned Humm.	c M P H C	Common Raven	c T L M P
Costa's Hummingbird	u L P	White-necked Raven	c C
Anna's Hummingbird	r M	Mexican Chickadee	u C
Broad-tailed Humm.	u L M H c C	Mountain Chickadee	u L
Rivoli's Hummingbird	u M c H C	Bridled Titmouse	c L M P C
Blue-throated Humm.	u M c H C	Verdin	c T P C
White-eared Humm.	r H	Common Bushtit	u C
Broad-billed Humm.	c M u P H C	White-breast. Nuthatch	c L P H C
Coppery-tailed Trogon	r C	Pygmy Nuthatch	c L C

Species	Status	Species	Status
Brown Creeper	c L M C	Painted Redstart	c L M H C
House Wren	c L M C	House Sparrow	c T M P
Bewick's Wren	c L M P C	Eastern Meadowlark	u H C
Cactus Wren	c T M P C	Western Meadowlark	u M P
Canyon Wren	u L M P C	Red-winged Blackbird	c T P H C
Rock Wren	u L C	Hooded Oriole	c T M P C
Mockingbird	c T L M C	Scott's Oriole	c L M P H C
Curve-billed Thrasher	c T L M P C	Bullock's Oriole	u C
Robin	u L M P H C	Boat-tailed Grackle	c P
Hermit Thrush	c L M P C	Brown-headed Cowbird	c T M P
Swainson's Thrush	r M P	Bronzed Cowbird	c T L M P
Eastern Bluebird	c C	Western Tanager	c T L M P H C
Western Bluebird	c L C	Hepatic Tanager	u L M H C
Townsend's Solitaire	u M	Summer Tanager	c P
Blue-gray Gnatcatcher	r C	Cardinal	c T L M P C
Black-tail Gnatcatcher	u T	Pyrrhuloxia	c T M P
Phainopepla	c T M P	Black-headed Grosbeak	c T L M P H C
Loggerhead Shrike	u T M H C	Blue Grosbeak	u P H
Starling	c T P C	Lazuli Bunting	u P
Hutton's Vireo	c L M H C	Varied Bunting	r P
Bell's Vireo	c M P H C	Evening Grosbeak	r L
Solitary Vireo	c L M C	House Finch	c T L M P H C
Warbling Vireo	c L M P C	Pine Siskin	u L C
Lucy's Warbler	c M P C	Lesser Goldfinch	u P
Olive Warbler	c L C	Rufous-sided Towhee	u L M C
Yellow Warbler	u P	Brown Towhee	c T M P C
Audubon's Warbler	c L P C	Abert's Towhee	u T
Black-thr. Gray Warb.	c L M C	Lark Sparrow	u P M
Townsend's Warbler	u M P	Rufous-winged Sparrow	u M
Grace's Warbler	u L C	Rufous-crowned Sparrow	u M
MacGillivray's Warbler	u P C	Black-thr. Sparrow	u T P H C
Yellowthroat	c P	Mexican Junco	u L P H C
Yellow-breasted Chat	c P C	Chipping Sparrow	u C
Red-faced Warbler	c L C	White-crowned Sparrow	r P
Wilson's Warbler	c M P C	Lincoln's Sparrow	r C

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BREEDING BIRD ATLAS PROJECT
MONTGOMERY COUNTY, MARYLAND

M. Kathleen Klimkiewicz and Edward S. Buckler

The concept of an atlas of breeding birds is a relatively new one. The original atlas idea began with the research for and the publication of the *Atlas of the British Flora* in 1962. The Research Committee of the West Midland Bird Club of Britain began work on an avifauna atlas in 1965; field work was begun in 1966 and the three-year pilot study resulted in the *Atlas of Breeding Birds of the West Midlands*. In 1968 the British Trust for Ornithology initiated a 5-year survey of the breeding birds of the British Isles using a 10-kilometer grid as shown by Lord and Munns (1970).

Several different breeding bird censuses or surveys have been conducted in North America; but none, for the primary purpose of mapping local breeding distribution. The atlas method is presently being used in a 2-year pilot study of Montgomery County, Maryland by the Montgomery County Chapter of the Maryland Ornithological Society. The objective of the survey is to determine which species are actually breeding in each block of the county. By using the atlas method, any section of the survey can be duplicated within the same geographic areas in future years and a direct meaningful comparison made of the studies. Such a comparison would show changes in the distribution of any species within the geographic area surveyed. Changing distribution in response to environmental stress could possibly provide indicator species for specific forms of pollution and/or changes in the environment.

MATERIALS AND METHODS

Montgomery County is mapped in 7 1/2 minute quadrangle maps by the United States Geological Survey. For the purposes of the breeding bird atlas each 7 1/2 minute quadrangle was subdivided into six equal blocks—northeast, northwest, central east, central west, southeast, and southwest. A block consists of about 9 2/3 square miles. The 7 1/2 minute map was used because 4 of the 6 blocks within a quadrangle are approximately equal in area (within 1%) to the international standard 10-kilometer grid. Therefore, our maps can be directly compared with any of the atlas map from Europe.

A list of the quadrangle maps that cover Montgomery County follows, with the number of blocks shown in parenthesis. Since many 7 1/2 minute maps contain portions of neighboring counties, the number of blocks often is fewer than 6; several incomplete boundary blocks have been combined with adjacent blocks for assignment purposes, but field records were kept separately for each block or fraction thereof: Urbana and Damascus (7); Poolesville, Waterford and Leesburg (7); Germantown (6), Gaithersburg (6); Sandy Spring and Woodbine (7); Sterling (3); Seneca (4); Rockville (6); Kensington (6); Clarksville, Beltsville and Washington East (6); and Falls Church and Washington West (4).

A coordinator was assigned to each quadrangle and had an assistant for each of the blocks within the quadrangle. The coordinator was responsible for the final report for that area of the county. In the field, District of Columbia bird checklists were used for recording the raw data (Fig. 1). Following the species names on the checklist are three columns. From left to right these columns were labeled "possible", "probable" and "confirmed" breeding to indicate levels of breeding evidence. For each species, breeding evidence was recorded using the following codes adapted from Lord and Munns (1970):

POSSIBLE BREEDING - Code entered in the first column of the checklist.

Bird recorded in the breeding season *in possible nesting habitat*, but no other indication of breeding noted.

PROBABLE BREEDING - Codes entered in the second column.

S Singing male present (or breeding calls heard) on more than one date in the same place.

T Bird (or pair) apparently holding territory.

D Courtship and display; or agitated behavior or anxiety calls from adults, suggesting probable presence of nest or young nearby; brood-patch on trapped female or cloacal protuberance on trapped male.

N Visiting probable nest-site.

B Nest building by wrens and woodpeckers.

CONFIRMED BREEDING - Codes entered in the third column.

DD Distraction display or injury feigning.

NB Nest building by any species except wrens and woodpeckers.

UN Used nest found.

FE Female with egg in the oviduct.

FL Recently fledged young.

FS Adult carrying faecal-sac.

FY Adult(s) with food for young.

ON Adult(s) entering or leaving nest-site in circumstances indicating occupied nest.

NE Nest and eggs or bird setting and not disturbed or egg shells found away from nest.

NY Nest with young, or downy young of waterfowl, quail, waders, etc.

CODES

POSSIBLE BREEDING

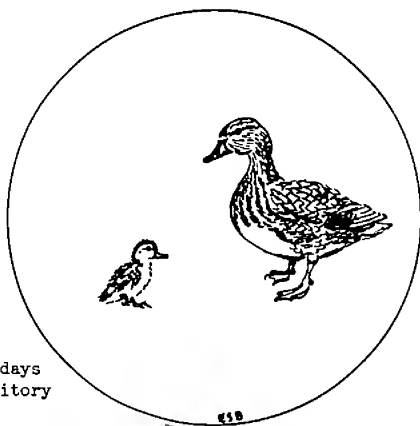
- ✓ Bird seen in area

PROBABLE BREEDING

- S Singing male on two days
T Bird(s) holding territory
D Courtship, display
N Visiting probable nest-site
B Nest-building for wrens and woodpeckers

CONFIRMED BREEDING

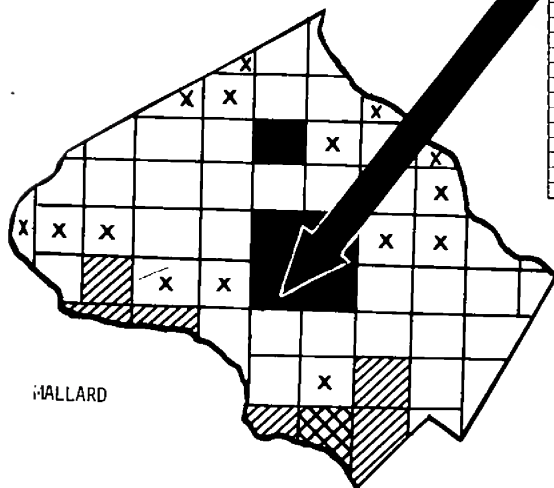
- DD Distraction display
NB Nest building
UN Used nest
FE Female with egg in oviduct
FL Recently fledged young
FS Adult carrying faecal-sac
FY Adult(s) with food for young
ON Adult(s) entering or leaving nest site
NE Nest and eggs or adult on nest
NY Nest with young, downy young of ducks or game-birds



Check-list of Birds of the District of Columbia Region

Observers		Date 1971-72 Seasons	
Bob Mahr		Possible	
Quad: Rockville		Probable	
Sector: Northwest		Confirmed	
HERON, Great Blue	✓	VULTURE, Turkey	✓
Green		Black	
Little Blue		GOSHAWK	
EGRET, Cattle		HAWK, Sharp shinned	
Common		Coope's	
Snowy		Red tailed	
HERON, Louisiana		Red shouldered	D
Black-crowned Night		Broad winged	
Yellow-crowned Night		Rough legged	
BITTERN, Least		EAGLE, Golden	
American		Bald	
IBIS, Glossy		HAWK, Marsh	
SWAN, Mute		OSPREY	
Whistling		FALCON, Peregrine	
GOOSE, Canada	NY	HAWK, Pileated	
BRANT		Sparrow	
GOOSE, Snow		GROUSE Ruffed	
Blue		BOOBYWHITE	NY
DUCK, Fulvous Tree		RHEASANT, Ring necked	
MALLARD	NY	TURKEY, Wild	
DUCK, Black		RAIL, King	
GADWALL		Clapper	
PINTAIL		Virginia	
TEAL, Green-winged		SORA	
Blue-winged		RAIL, Yellow	
WIDGEON, European		Black	
American		GALLINULE, Common	
SHOVELER		COOT, American	
DUCK, Wood		OYSTERCATCHER, American	
REDHEAD		PLOVER, Semipalmated	
DUCK, Ring necked		Piping	
CANYASBACK		Wilson's	
SCAUP, Greater		KILLDEER	BD
Lesser		PLOVER, American Golden	

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MALLARD

Equipped with maps, checklists, and breeding status codes, observers first familiarized themselves with the habitats in their assigned block and then concentrated on the most productive areas. Some observers made a tentative list of expected breeding species and then searched for these species in the field. The survey is not concerned with numbers of birds, but rather with the question of which species are breeding within which blocks. Therefore, once an observer had confirmed a species in a block, he was no longer concerned with the species and could concentrate on confirming others. One of the best times of the year for confirming breeding of song birds seems to be the last week in June and the first two weeks of July because many males are still singing on territory, some species are beginning their second nesting, there are many fledgling birds in the area, and parents are feeding young.

After all reports were received and verified, distribution maps were prepared for each species found within the county (Figs. 1, 2 and 3). The maps reflect only the highest level of evidence obtained for a species within a block. Next year, the maps will be amended to include the new data as species are moved from lower to higher levels of breeding evidence. A rough measure of relative abundance can be computed on the percentage of blocks in which a species is found. Ten maps are shown as examples (Figs. 2 and 3); however, it should be emphasized that for some species these maps show poor coverage by observers rather than a discontinuous breeding distribution.

RESULTS AND DISCUSSION

Montgomery County is located in the Piedmont region of Maryland. The terrain is gently rolling with elevations of 300 to 800 feet. Much of the land is either city-residential or agricultural with scattered woods. Many areas contain narrow strips of well-developed floodplain forest. Although there are several reservoirs within the county, water, marsh and bottomland habitats are restricted. This results in a "marked uniformity in environment, resulting in a rather restricted number of habitats . . ." (Stewart and Robbins, 1958).

Characteristic bird species are widespread and common throughout much of the eastern deciduous forest section of the Piedmont. A southern influence is seen along the Potomac River Valley which provides an "invasion route" for such species as the Prothonotary Warbler, Summer Tanager, and Blue Grosbeak. The occurrence of Traill's and Least Flycatchers and Savannah Sparrow indicates influences from the north.

There are 195 possible breeding species in Maryland and 132 in Montgomery County. In the first year of this study, 88 species were confirmed as breeding in the county, 14 as probable and 17 as possible, for a total of 119 species in the 1971 breeding season. Observers recorded an average of 50 to 60 species within a block and of these species about one-third each were confirmed, possible, and probable.

Several species within each breeding category will be discussed in the following pages. It should be emphasized that the results are pre-

liminary because the coverage was incomplete for many blocks.

YELLOW-CROWNED NIGHT HERONS (*Nyctanassa violacea*) are rare and local in the county and were observed as possible nesters in both the Poolesville and Sterling quadrangles. In previous years a small colony of these night herons was found at the junction of Seneca Creek and the Potomac River (Seneca quadrangle). However, the two nests found in 1969 were unsuccessful (DuMont, 1969). No successful nest was found in 1970, although adults were seen. During June 1971, five adults were seen feeding regularly in a flooded field at Sycamore Landing (Paul Woodward, pers. comm.).

Two quadrangles—Falls Church and Sterling—had BLACK DUCKS (*Anas rubripes*) present during the breeding season. This is a duck of the tide-water sections; however, it is a confirmed breeding species at Mason Neck, Virginia. This species is rare in the interior of all sections of Maryland (Stewart and Robbins, 1958).

The SHARP-SHINNED HAWK (*Accipiter striatus*) is rare in the Piedmont and is most often found in extensive wooded areas. This species has nested in the county in previous years; however, only one bird was observed (Germantown quadrangle). A COMMON GALLINULE (*Gallinula chloropus*) was observed in breeding habitat at Hughes Hollow (Sterling quadrangle). This species is a rare transient in the Piedmont; however, it has nested at Mason Neck, Virginia in previous years.

Two blocks in the Germantown quadrangle reported LEAST FLYCATCHERS (*Empidonax minimus*). This is a rare and local species in the Piedmont and nests in open deciduous woodlands. The BLUE-WINGED WARBLER (*Vermivora pinus*) is a fairly common local nesting species in the Piedmont in northeastern Maryland. In 1951 a nest with eggs was located within Montgomery County (Stewart and Robbins, 1958). Two males were heard singing (on one date only) in two blocks of the Germantown quadrangle.

The SUMMER TANAGER (*Piranga rubra*) is uncommon to rare in the Piedmont, being concentrated along the Potomac River Valley. One was observed in the Germantown quadrangle. A pair was found holding territory near Violet's Lock (Seneca quadrangle) in 1970 (J. Abbott, pers. comm.).

The HOUSE FINCH (*Carpodacus mexicanus*) is extending its range southward from Long Island, New York where the species was introduced in the eastern United States. Two separate observations were made of this species in the Washington West—Kensington quadrangle boundary area during the nesting season. Uncommon and local in the Piedmont, the SAVANNAH SPARROW (*Passerculus sandwichensis*) was found in two quadrangles—Gaithersburg and Rockville.

During the early 1950's, several pairs of SWAMP SPARROWS (*Melospiza georgiana*) were apparently holding territory along the Rockville-Gaithersburg quadrangle border area. Shortly thereafter the area was flooded to create Needwood Lake and the birds disappeared (C. Carlson, pers. comm.). A Swamp Sparrow was observed in the Gaithersburg quadrangle in suitable

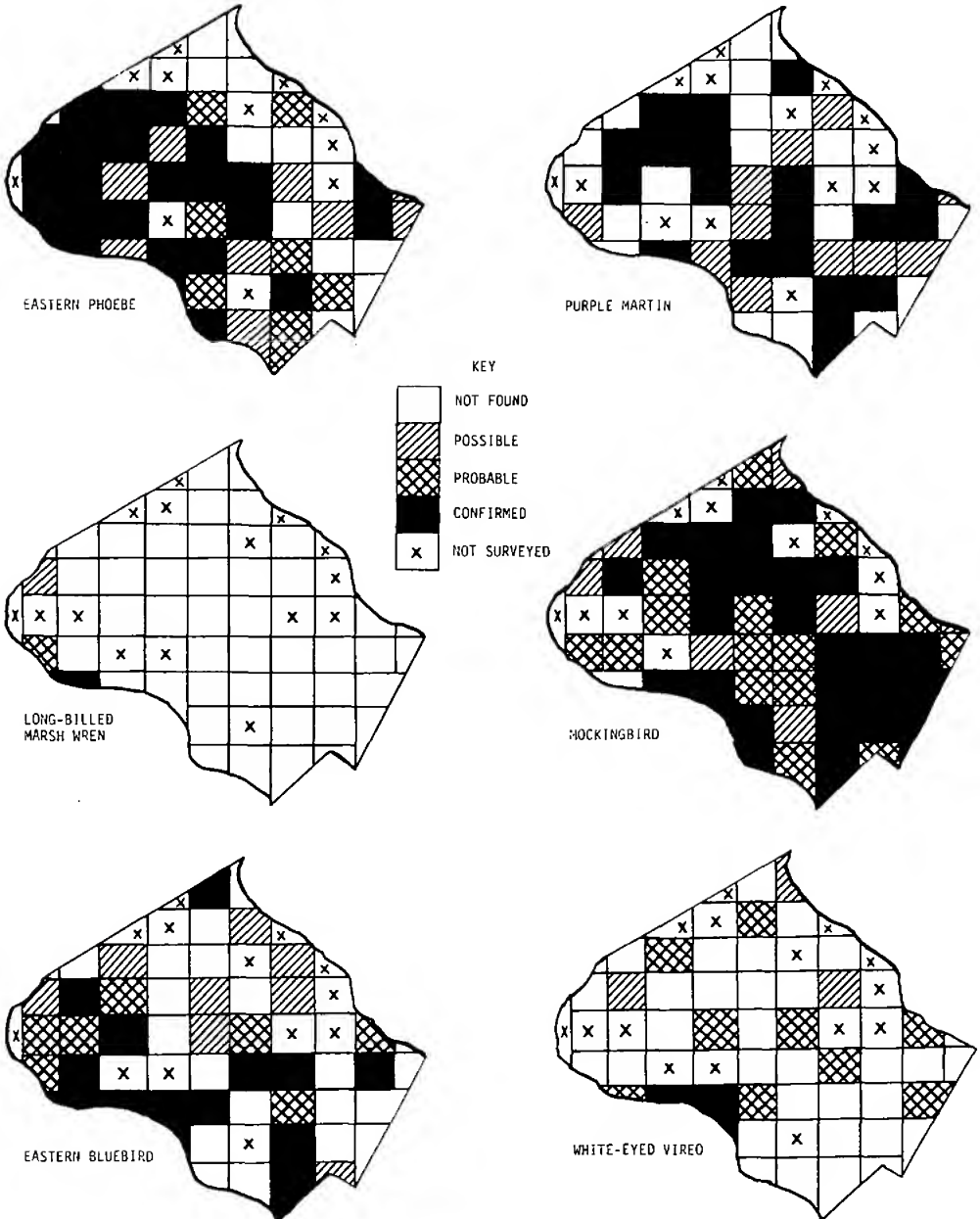


Fig. 2. Breeding status of 6 species in Montgomery County in 1971.

habitat. If nesting can be confirmed this would be an interesting range extension, as Montgomery County lies midway between the breeding ranges of *M. g. georgiana* in the Appalachian Mountains and *M. g. ericrypta* on Maryland's Eastern Shore.

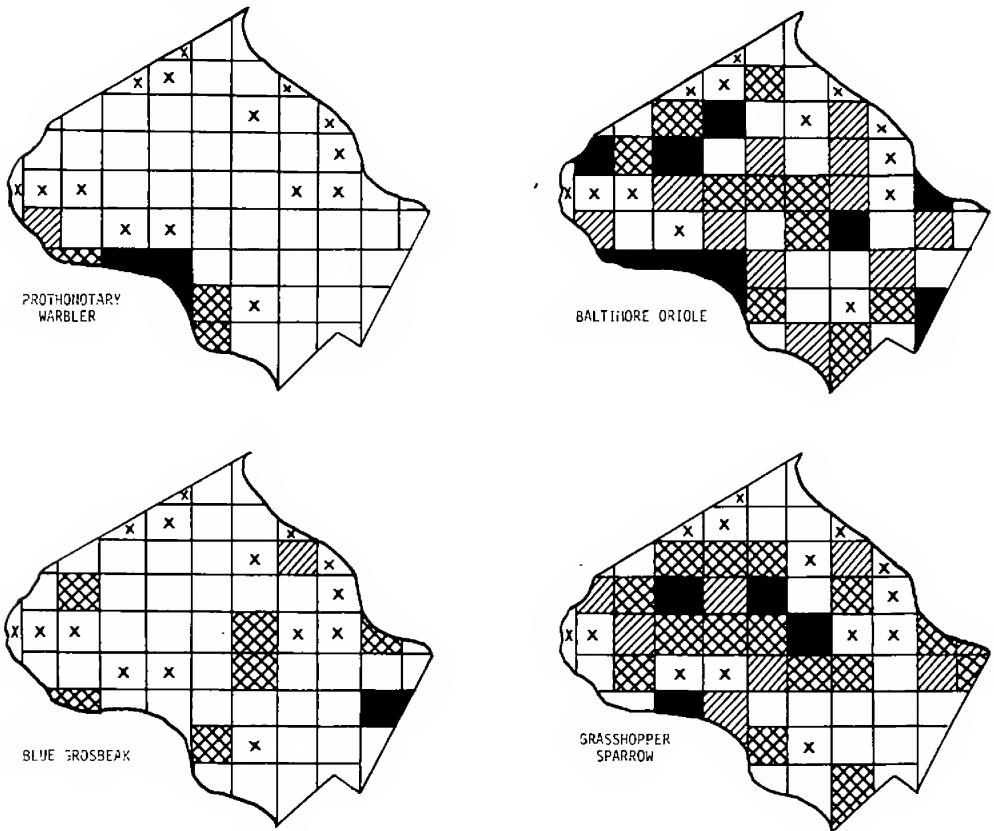


Fig. 3. Breeding status of 4 species in Montgomery County in 1971.

Probable nesting species in 1971 include the RING-NECKED PHEASANT (*Phasianus colchicus*), TURKEY (*Meleagris gallopavo*), and the BLACK-BILLED CUCKOO (*Coccyzus erythrophthalmus*). Pheasants have been introduced by state game officials in many areas, but have been unable to establish breeding pairs except locally in the Piedmont. This species was recorded in ten blocks of six quadrangles. Wild Turkeys formerly nested throughout the Piedmont, but now only introduced individuals are found in the county (Sterling and Germantown quadrangles—three blocks). The Black-billed Cuckoo is an uncommon breeding species in the Piedmont and was recorded in three blocks of the Poolesville and Germantown quadrangles.

Several confirmations were of special interest. LEAST BITTERNS (*Ixobrychus exilis*) nested in the Hughes Hollow marsh. Although occasional birds are seen in all interior sections of the state, this is the only area in Montgomery County where this species has successfully nested. The first nests were found by E. M. Martin in 1967 and 1968.

Two nests of the CANADA GOOSE (*Branta canadensis*) were found. This is the second year geese have nested at the National Geographic building (Rockville quadrangle) and also the second year at Rossmoor Leisure World

(Kensington quadrangle). An adult AMERICAN COOT (*Fulica americana*) was observed with downy young along the Potomac River (Seneca quadrangle). This is the first Maryland nesting record west of the Chesapeake Bay. This species is a possible breeder at Hughes Hollow (Sterling quadrangle).

The SPOTTED SANDPIPER (*Actitis macularia*) was confirmed in one block (Gaithersburg quadrangle), probable in one, and possible in four. This species is unco-mon in all sections of Maryland in the breeding season. Although the owls were poorly surveyed this year, one pair of BARN OWLS (*Tyto alba*) was observed with one young in the Sterling quadrangle. Both Barn Owls and RED-HEADED WOODPECKERS (*Melanerpes erythrocephalus*) are uncommon locally during the nesting season. Red-headed Woodpeckers were confirmed in two blocks (one each in the Kensington and Poolesville quadrangles), probable in one block and possible in another.

TRAILL'S FLYCATCHER (*Empidonax traillii*) was confirmed in one block and probable in a second in the Sterling quadrangle. It was also recorded as probable in one block of the Gaithersburg quadrangle and possible in one block each of the Poolesville, Germantown and Seneca quadrangles. This is at least the third year Traill's Flycatchers have nested at Hughes Hollow. There were five pairs including one of the northern fee-bee-o song type (Woodward, pers. comm.). This is the first county nesting record. TREE SWALLOWS (*Iridoprocne bicolor*) were confirmed in one block each in the Sterling and Seneca quadrangles. They were observed in five blocks of four quadrangles elsewhere in the county. The first two nests were seen in 1970 and the population increased to four pairs in 1971 at Hughes Hollow (Woodward, pers. comm.). This is another county record.

CLIFF SWALLOW (*Petrochelidon pyrrhonota*) was confirmed in the Clarks-ville quadrangle. This species is rare and local in the Piedmont and the normal range is northwest of Montgomery County. BROWN CREEPERS (*Certhia familiaris*) nested along the C and O Canal (Seneca quadrangle) in 1970 and 1971. A total of three nests were found in the county in 1970 (Carlson, pers. comm.) and one in 1971.

One WORM-EATING WARBLER (*Helminthos vermivorus*) was confirmed in the Clarks-ville quadrangle. This is a local nesting species in the Piedmont, usually found in well-drained upland deciduous woods with shrub understory (Stewart and Robbins, 1958). A fledgling DICKCISSEL (*Spiza americana*) was observed in the Germantown quadrangle. This species is regular but variable in abundance in the Piedmont and has nested in Montgomery County in the Dickerson-Poolesville area.

Figure 2 shows the breeding distribution maps for EASTERN PHOEBE (*Sayornis phoebe*), PURPLE MARTIN (*Progne subis*), MOCKINGBIRD (*Mimus polyglottos*), and EASTERN BLUEBIRD (*Sialia sialis*), all of which are widely distributed as breeding birds of Montgomery County.

The LONG-BILLED MARSH WREN (*Telmatodytes palustris*) was concentrated along the Potomac in the Hughes Hollow-Seneca-Poolesville area. Confirmed nesting was established in one block (about 12 pairs) and probable status

in another block (one pair) in the Sterling quadrangle (Woodward, pers. comm.). This is the second county nesting record for this typical species of the Eastern Shore in tidal salt marshes. The Potomac River is basically fresh water in this section; however, the marshes at Hughes Hollow offer excellent vegetative habitat for this species which is expanding its range northwestward into Montgomery County. This species also was recorded as possible in one block of the Poolesville quadrangle (Fig. 2).

Stewart and Robbins (1958) indicate that the WHITE-EYED VIREO (*Vireo griseus*) is uncommon in the Piedmont except along the Potomac River Valley where it is fairly common. This survey shows this species to be fairly prevalent throughout the county (Fig. 2). The favored habitat is shrub swamps, brushy cutover forest swamps, hedgerows, and wood margins in agricultural areas. The BALTIMORE ORIOLE (*Icterus galbula*) is well distributed in the county as well as throughout the Piedmont (Fig. 3).

The breeding range of the PROTHONOTARY WARBLER (*Protonotaria citrea*) in Maryland reaches its western and northern limit along the Potomac River Valley. The distribution follows the river the whole length of the county, and no birds were found elsewhere (Fig. 3). The BLUE GROSBEEK (*Guiraca caerulea*) survey distribution follows the known northern breeding limit in the eastern United States (Fig. 3). This species is uncommon in the southern and rare in the northern Piedmont.

The GRASSHOPPER SPARROW (*Ammodramus saviannarum*) is common in all sections of the state. The preferred nesting habitat is various types of hayfields, overgrown pastures and weedy fallow fields (Stewart and Robbins, 1958). This study shows the distribution skirting the heavily populated areas (Fig. 3). This species can be considered an indicator of human population pressure upon the nesting habitat as the urban areas expand.

The results this year indicate the need for a concentrated effort during the next breeding season to complete the pilot study. Coverage will begin in February and terminate in August. In order for the pilot survey of Montgomery County to be truly meaningful, a state study should be undertaken. A state atlas would have far greater impact than a county one because of the greater number of both species and habitats that would be sampled. It is hoped that the Maryland Ornithological Society will sponsor a Maryland State Breeding Bird Atlas Project after the pilot study is completed during 1972.

SUMMARY

We cannot stress too strongly the scientific value of a project such as the breeding bird atlas study. The *BTO News* (Ornithological Atlas Supplement, 1971) summarized its value as follows:

The breeding distributions of birds are not static and many factors affect the changes in status—climatic change, natural evolution and degeneration of habitats, alterations in land-use (such as

drainage of marshes, removal of hedgerows, replacement of deciduous woods by conifers and formation of new reservoirs), changes in human activity (such as reduction in shooting and keeping or an increase in water-sports), modification of a species' requirements (allowing it to colonise new habitats) or variations in abundance of its preferred food. Man's activities in particular are likely to alter the countryside to an increasing extent so it is important to have an accurate record of present-day distributions of animals and plants. This will obviously be invaluable for comparison in future years, but it is also essential to have a precise map if one is to study the factors affecting the current distributions and subsequent changes. Objectively-constructed distribution maps have never before been available [in Britain], are bound to prompt as many new questions as they are likely to answer others, and have great potential value as a conservation document.

In addition, many observers have indicated to us the value of the project for personal enjoyment and satisfaction. The survey gave them a goal for birding during the breeding season and the satisfaction of observing behavior of even the most common species. Any persons interested in participating in 1972 should contact one of the authors.

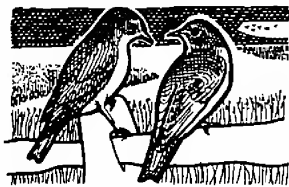
ACKNOWLEDGEMENTS

Many people have contributed to the success of the first year's atlas survey. The field work was performed by fifty observers and nine coordinators. Our thanks to each, particularly the following coordinators: Chuck Cremeans, Vince Jones, Ernie Meyers, Pat Moore, Harvey Mudd, the late Howard Ross, Isaac Sanchez, and Paul Woodward. Appreciation is extended to Danny Bystrak for preparing the maps.

Bill Oberman and Chan Robbins deserve credit for proposing the project. Chan's aid, technical advice, and encouragement have been invaluable. Our thanks go also to Dr. Timothy Sharrock of the British Trust for Ornithology. Information furnished by Dr. Sharrock provided the methods upon which this study was based. The Ornithological Atlas Project of Britain and Ireland coordinated by Dr. Sharrock for the British Trust for Ornithology sets a goal which will be hard to duplicate.

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THE SEASON

APRIL, MAY, JUNE, 1971

Chandler S. Robbins

It was a cold, cold spring. The chill of late March continued into April, and the chill of April continued right through the month of May. For nine consecutive weeks the average temperature in eastern Maryland was below normal, and for seven of these weeks this condition prevailed over the entire State. The greatest departure from normal occurred in the week of April 26 to May 2, just when the largest numbers of spring arrivals should have made their debut. If there was any consolation for the lateness of the season, it was in the lingering of small numbers of winter birds into the late spring, coupled with the hope that the weather might suddenly turn warm and bring in a great flood of feathered transients just before the trees came into leaf. Unfortunately, no such change in the weather occurred until the leaves were well developed and the migration was essentially over. Then, to add insult to injury, a heat wave in early June swept the State almost clear of late migrants and thwarted efforts of observers who had hoped to break late departure records.

April was dry, especially in western Maryland, but it rained heavily in May, and precipitation remained adequate through June. In contrast to the map of May temperatures, which showed nearly all the lower 48 states in the grip of unseasonably cold weather, the June map showed almost all states with above average temperatures.

As in previous reports, the extreme arrival and departure dates for the more widely reported migrants are tabulated in order to condense thousands of dates compiled by scores of members representing all sections of the State. These dates, in addition, document occurrence county by county, compare characteristics of the 1971 migration with previous years, and serve as a rough index to trends in abundance and in distribution over a period of years.

It is difficult to single out certain observers for special mention, especially when some members send their records through county compilers and others submit them directly. A few contributors routinely include detailed notes substantiating unusual observations or drawing comparisons with prior years; such annotated lists make an important contribution to "The Season" report and are more likely to result in acknowledgment in

Table 1. Spring Arrival Dates, 1971

Species	Median			Garr	Alle	Wash	Fred	Balt	Howd	Mont	Pr.G	Anne	Calv	Cecil	Kent	QuAn	Caro	Talbi	Dore	Somr	Wore
	10-yr	1971																			
Common Loon	--	4/13		5/ 1	0	0	0	5/ 1	5/ 1	4/10	4/12	4/13	--	0	4/ 7	5/ 1	4/ 8	4/12	5/ 1	--	--
Double-cr. Cormorant	--	5/ 1		0	0	0	0	0	0	0	0	5/12	0	0	5/ 1	0	0	5/ 9	5/ 1	--	4/17
Green Heron	4/23	4/30		5/ 1	4/19	--	4/23	5/ 1	5/ 1	4/18	4/ 9	4/21	5/ 7	5/ 1	4/28	5/ 1	4/27	4/30	5/ 1	4/10	5/ 1
Little Blue Heron	--	--		0	0	0	0	0	0	0	0	5/ 8	0	0	0	0	5/ 1	0	0	4/24	4/ 3
Cattle Egret	--	4/26		0	0	0	5/ 1	4/20	0	3/20	0	4/28	4/ 3	0	5/ 8	5/22	5/ 1	5/23	4/24	4/20	3/21
Common Egret	--	5/ 1		0	0	0	0	0	0	4/ 2	4/ 1	5/ 2	0	0	5/ 1	4/ 9	0	4/17	5/ 1	5/ 1	5/ 1
Snowy Egret	--	4/21		0	0	0	0	0	0	0	0	4/21	0	0	5/ 1	5/ 1	0	5/27	3/25	4/ 9	4/ 3
American Bittern	--	4/30		0	5/ 7	0	4/30	0	0	3/20	3/28	3/29	0	0	4/14	5/ 8	5/ 1	0	5/ 1	4/17	5/ 1
Glossy Ibis	--	5/ 1		0	0	0	0	5/ 1	0	3/29	5/10	5/12	0	0	4/14	5/22	0	0	3/15	4/ 9	5/ 1
Broad-winged Hawk	4/22	4/24		5/ 1	4/16	5/ 1	5/ 1	4/ 8	4/16	4/17	5/ 1	4/24	4/24	4/26	0	0	5/ 1	0	0	0	0
Semipalmated Plover	--	5/ 6		0	5/ 8	0	4/30	5/ 6	0	0	0	5/ 1	0	0	0	--	0	--	5/ 1	5/ 8	5/ 8
Spotted Sandpiper	4/30	4/28		5/ 1	4/27	5/ 1	4/23	4/20	4/29	4/11	4/22	4/28	0	5/ 1	5/ 1	--	4/27	5/ 1	--	5/ 1	--
Solitary Sandpiper	5/ 2	5/ 1		5/ 1	4/20	5/ 1	4/23	5/ 1	5/ 1	4/22	4/26	4/26	0	0	5/ 1	--	5/ 1	0	5/ 8	0	5/ 1
Greater Yellowlegs	4/10	4/21		5/ 1	4/30	0	4/16	5/ 1	0	3/28	0	3/28	4/26	0	4/ 8	4/10	3/18	5/ 1	5/ 1	4/ 9	5/ 1
Lesser Yellowlegs	5/ 2	4/30		5/ 1	5/ 1	0	4/23	4/20	4/30	4/10	5/ 1	4/21	0	0	4/26	5/ 1	4/ 1	5/ 1	5/ 1	4/17	5/ 8
Pectoral Sandpiper	--	4/24		0	4/13	0	4/16	3/23	0	5/ 2	--	--	0	0	4/23	0	5/ 1	5/ 1	4/24	4/24	--
Least Sandpiper	--	5/ 1		0	5/ 2	0	4/30	5/ 3	0	5/ 1	0	4/28	0	0	5/ 1	5/ 1	5/ 1	0	5/ 1	--	5/ 8
Dunlin	--	5/ 1		0	5/ 8	0	5/ 1	0	0	0	0	5/ 8	0	0	0	0	0	5/ 1	5/ 1	4/24	5/ 1
Semipalmated Sandpiper	--	5/ 6		5/ 1	5/ 8	0	5/14	0	0	5/ 1	0	5/ 6	0	0	4/ 2	--	0	--	5/ 1	5/11	5/ 8
Laughing Gull	--	4/18		0	0	0	0	0	0	0	0	4/24	4/18	--	5/ 1	5/ 1	4/17	4/10	5/ 1	4/10	4/ 3
Bonaparte's Gull	--	4/ 9		4/17	4/ 2	0	4/16	4/ 9	0	3/26	0	0	0	0	0	0	0	4/12	--	0	3/21
Common Tern	--	5/ 1		0	5/ 8	0	0	0	0	4/30	0	--	--	5/ 1	5/ 1	5/ 1	0	5/ 1	5/ 1	4/17	4/17
Least Tern	--	5/ 1		0	0	0	0	0	0	0	0	5/ 8	0	0	5/ 1	--	0	--	5/ 8	4/25	5/ 1
Caspian Tern	--	4/30		0	0	0	0	4/25	0	5/ 2	0	4/28	4/26	5/ 1	5/ 8	--	0	0	4/24	0	5/ 1
Black Tern	--	--		0	5/ 8	0	--	5/ 1	0	5/ 1	0	5/ 8	0	0	0	0	0	0	0	0	0
Yellow-billed Cuckoo	5/ 4	5/ 8		--	5/ 1	5/16	5/14	5/11	5/ 9	5/ 4	5/ 8	5/ 8	5/31	5/ 8	5/ 8	--	5/ 1	--	5/ 8	6/10	5/ 8
Black-billed Cuckoo	5/ 5	5/ 7		--	5/ 7	0	5/ 8	5/ 9	5/ 2	5/ 1	5/ 4	0	0	0	5/24	0	0	0	0	0	0
Chuck-will's-widow	--	5/ 1		0	0	0	0	--	0	0	0	5/ 4	0	0	5/10	5/ 1	5/ 1	--	5/ 1	0	5/ 1
Whip-poor-will	4/21	4/28		--	5/ 1	0	0	4/28	4/20	4/25	4/27	4/18	5/ 9	0	5/ 1	0	4/19	0	5/ 1	5/ 7	4/17
Common Nighthawk	5/ 5	5/ 8		0	5/12	--	5/ 8	5/11	5/16	5/ 8	--	5/ 2	0	0	0	0	--	--	5/ 8	0	0
Chimney Swift	4/15	4/26		5/ 1	4/26	5/ 1	4/15	4/24	4/27	4/22	4/25	4/26	4/26	4/12	5/ 1	5/ 1	4/10	4/12	--	5/ 7	--
Ruby-thr. Hummingbird	4/30	5/ 1		--	5/10	5/14	5/ 8	5/ 1	5/ 6	4/17	5/ 1	5/ 1	5/ 1	--	5/ 1	5/ 1	5/ 1	5/ 1	--	4/29	5/ 8
Yellow-shafted Flicker	3/20	3/24		--	--	4/25	--	3/16	4/ 1	3/24	3/12	--	3/12	--	4/10	--	--	--	--	--	--
Red-headed Woodpecker	--	5/ 1		--	0	5/ 1	5/ 1	5/ 1	5/ 9	5/ 1	0	5/ 8	3/14	0	4/13	5/ 1	5/ 1	0	5/ 1	5/ 1	5/ 1
Eastern Kingbird	4/26	5/ 1		5/ 1	5/ 1	5/ 1	5/ 1	5/ 1	5/ 1	4/29	4/21	5/ 2	5/ 7	5/ 5	4/25	--	4/24	--	5/ 1	5/ 1	--
Gt. Crested Flycatcher	4/20	5/ 1		--	5/ 7	5/ 1	5/ 8	5/ 1	5/ 2	5/ 1	5/ 1	5/ 1	5/ 1	5/10	5/ 1	--	5/ 1	5/ 1	5/ 1	5/ 1	--
Acedian Flycatcher	5/ 4	5/ 8		0	--	--	5/ 8	5/11	5/ 6	5/ 2	5/ 6	5/ 8	5/ 8	5/10	--	--	5/ 1	--	5/ 1	5/10	5/ 8
Trall's Flycatcher	--	--		--	0	0	0	6/ 5	6/ 6	5/24	6/10	0	0	0	0	0	0	0	0	0	0
Least Flycatcher	--	5/ 8		5/15	5/ 9	0	0	0	5/ 6	5/ 8	0	5/ 8	0	0	0	0	0	0	0	5/12	0
Eastern Wood Pewee	5/ 4	5/ 1		4/30	5/ 1	--	--	5/ 1	5/10	5/ 1	4/28	5/ 2	5/12	5/ 1	5/ 1	--	5/ 2	--	5/ 1	5/ 9	5/ 8
Bank Swallow	--	5/ 1		0	0	--	4/16	5/ 1	5/11	4/16	4/19	4/26	4/24	4/19	5/ 1	5/ 1	5/ 1	5/ 1	5/ 1	0	5/ 8
Rough-winged Swallow	4/14	4/24		4/18	4/20	5/ 1	4/23	4/11	5/ 1	4/25	4/30	5/ 1	5/ 1	4/19	4/14	4/19	4/26	0	5/ 1	0	4/17
Barn Swallow	4/ 8	4/10		4/17	4/ 5	4/11	4/16	4/15	4/11	4/ 3	4/ 3	4/ 8	4/11	4/19	4/ 7	4/ 9	4/ 2	4/11	--	4/ 9	--
Cliff Swallow	--	5/ 1		--	0	0	5/ 1	5/ 1	4/26	5/ 1	0	0	0	0	0	0	5/ 1	0	5/ 1	0	5/ 8
Blue Jay	4/27	5/ 1		5/ 1	5/ 1	4/24	5/ 1	5/ 1	5/ 1	4/25	4/ 7	4/30	4/22	--	5/ 1	5/ 1	5/ 1	--	--	5/ 1	--
House Wren	4/21	5/ 1		5/ 1	5/ 1	5/ 1	5/ 1	4/21	4/11	4/21	4/11	4/30	5/ 1	4/19	5/ 1	--	5/ 1	5/ 1	5/ 1	5/ 1	5/ 1
Long-billed Marsh Wren	--	5/ 1		0	0	0	0	5/ 1	0	5/ 6	0	4/21	--	0	5/ 1	5/ 8	5/ 1	--	5/ 1	4/19	5/ 1
Short-billed Marsh Wren	--	5/ 8		0	0	0	0	0	0	5/ 8	0	5/ 8	0	0	5/ 8	0	0	0	5/ 1	5/ 1	5/ 8
Catbird	4/27	5/ 1		5/ 1	5/ 9	5/ 6	5/ 1	5/ 1	5/ 1	5/ 1	4/27	5/ 2	5/ 2	4/12	4/25	5/ 1	5/ 1	5/ 1	5/ 1	4/16	5/ 8
Brown Thrasher	4/ 7	4/15		5/ 1	4/27	4/24	5/ 1	3/29	4/ 5	4/25	3/27	4/ 2	4/10	4/19	4/ 5	4/18	4/10	--	--	4/16	--
Wood Thrush	4/25	5/ 1		5/ 1	4/30	--	4/30	4/30	5/ 1	4/30	4/26	5/ 1	5/ 1	5/ 1	4/27	--	4/27	5/ 1	5/ 1	5/12	5/ 1
Hermit Thrush	--	4/12		--	0	--	--	4/18	4/15	3/28	4/12	--	3/27	0	4/21	4/27	4/ 8	--	--	4/ 7	--
Swainson's Thrush	5/ 6	5/ 8		0	0	0	5/11	4/25	5/ 9	5/ 8	5/11	5/ 8	5/ 8	0	0	0	--	0	0	0	5/ 8
Gray-cheeked Thrush	--	5/ 2		0	0	0	0	0	0	5/ 2	5/20	5/ 1	5/12	5/ 1	5/ 1	0	0	0	0	0	0

	Median		Garr	Alle	Wash	Fred	Balt	Howd	Mont	Pr.G	Anne	Calv	Ceci	Kent	QuAn	Caro	Talb	Dorc	Somr	Worc
	10-yr	1971																		
Veery	5/ 3	5/ 2	--	5/ 1	--	5/ 8	5/ 1	5/ 1	5/ 1	5/ 6	5/ 2	5/ 8	0	0	0	4/29	0	5/ 8	0	5/ 8
Blue-gray Gnatcatcher	4/14	4/16	5/ 1	4/12	4/24	4/17	4/22	4/18	4/ 3	4/12	4/25	4/11	--	--	4/16	--	--	4/11	--	--
Ruby-crowned Kinglet	4/12	4/12	4/17	4/ 9	--	4/13	4/ 3	4/15	4/ 9	4/13	4/11	4/ 3	0	4/ 5	4/20	--	--	4/11	--	--
Water Pipit	--	5/ 1	4/17	0	4/11	5/ 1	5/ 1	0	--	--	--	0	0	5/ 1	0	5/ 1	0	0	0	3/26
Cedar Waxwing	4/24	4/21	--	6/ 3	5/ 1	5/ 1	3/26	4/ 3	3/24	5/ 7	3/ 5	--	--	4/23	--	4/19	4/10	--	5/ 1	--
White-eyed Vireo	4/26	5/ 1	0	5/ 1	0	5/ 1	5/ 1	4/28	5/ 1	4/22	5/ 1	4/25	5/ 1	4/27	--	4/19	5/ 1	5/ 1	4/25	5/ 1
Yellow-throated Vireo	4/28	5/ 1	0	4/16	--	5/ 1	5/ 1	5/ 1	5/ 1	4/30	5/ 2	5/ 1	0	5/ 1	0	4/30	0	--	--	5/ 1
Solitary Vireo	4/26	5/ 1	4/17	5/ 9	0	5/ 9	5/ 1	4/30	4/27	4/21	4/13	5/ 1	0	5/ 1	0	0	0	5/ 8	0	5/ 8
Red-eyed Vireo	4/28	5/ 1	--	5/ 7	5/ 1	5/ 1	5/ 1	5/ 1	5/ 1	5/ 1	5/ 1	5/ 6	5/ 1	5/ 1	--	5/ 1	5/ 1	5/ 1	5/ 1	5/ 1
Warbling Vireo	5/ 2	5/ 1	0	5/ 1	5/ 1	5/ 1	5/ 1	5/ 1	5/ 1	5/ 1	5/ 8	0	5/ 1	5/ 1	--	4/30	0	0	0	5/ 8
Black-&white Warbler	4/22	5/ 1	5/ 1	5/ 1	5/ 1	5/ 8	5/ 1	4/24	4/28	4/19	4/10	4/24	5/ 5	4/14	4/27	5/ 1	5/ 1	5/ 1	4/24	5/ 1
Prothonotary Warbler	4/26	5/ 1	0	0	0	0	5/ 1	0	4/30	4/22	5/ 1	0	5/10	5/ 1	0	4/29	0	5/ 1	0	5/ 1
Worm-eating Warbler	5/ 2	5/ 1	0	6/ 3	--	--	5/ 6	5/ 2	5/ 1	4/21	5/ 1	5/31	0	5/ 8	0	5/ 1	0	5/ 1	0	5/ 1
Golden-winged Warbler	5/ 4	5/ 5	--	5/ 1	0	--	0	0	5/ 5	4/21	5/ 8	0	0	0	0	5/ 7	0	0	0	0
Blue-winged Warbler	5/ 3	5/ 8	0	0	0	5/10	5/ 7	5/ 1	5/ 1	5/ 1	5/ 8	5/ 8	5/ 5	5/ 8	0	5/ 6	0	5/ 8	0	5/ 8
Tennessee Warbler	--	5/ 8	0	5/ 1	0	0	5/23	5/11	5/ 5	5/ 1	5/ 8	5/ 8	0	0	0	0	0	5/ 8	0	5/ 1
Nashville Warbler	5/ 3	5/ 1	5/ 1	5/ 1	0	5/ 1	5/ 1	--	5/ 1	--	5/ 1	5/ 8	0	0	0	5/10	0	5/ 8	0	5/ 8
Parula Warbler	4/25	5/ 1	5/ 1	5/ 5	--	5/ 1	5/ 1	4/27	4/17	4/13	4/21	4/24	5/ 1	0	5/ 1	5/ 6	0	5/ 1	5/ 1	5/ 1
Yellow Warbler	4/27	5/ 1	5/ 1	4/23	5/ 2	5/ 1	4/25	5/ 1	5/ 1	4/23	5/ 1	5/ 4	5/ 1	4/27	--	5/ 1	0	5/ 1	4/24	5/ 1
Magnolia Warbler	5/ 4	5/ 6	--	0	0	0	5/11	5/ 9	5/ 1	4/30	5/ 2	--	0	5/ 1	0	5/10	0	0	5/11	0
Cape May Warbler	5/ 4	--	0	0	0	--	--	5/ 6	5/ 8	0	5/ 6	0	0	0	0	5/ 9	0	0	0	0
Black-thr. Blue Warbler	5/ 2	5/ 8	--	0	0	5/11	5/ 1	5/ 9	4/22	4/19	5/ 5	5/ 8	0	5/ 1	0	5/ 9	0	5/ 8	0	5/ 8
Myrtle Warbler	4/16	4/17	4/17	3/12	5/ 1	5/ 1	4/11	4/17	4/26	4/12	4/24	4/20	4/26	4/17	4/16	--	--	4/27	--	--
Black-thr. Green Warbler	5/ 2	5/ 4	4/17	5/ 9	--	--	5/ 1	4/14	4/25	4/21	5/ 1	5/ 8	0	0	5/ 8	5/ 9	0	5/ 8	0	5/ 8
Cerulean Warbler	5/ 3	5/ 1	5/ 1	5/ 1	0	5/ 7	0	0	4/24	5/ 1	5/ 1	0	0	0	0	0	0	0	0	0
Blackburnian Warbler	5/ 4	5/ 6	--	--	5/ 6	--	5/ 5	0	5/ 6	4/28	5/ 1	5/ 8	0	0	0	0	0	0	0	5/ 8
Yellow-throated Warbler	4/19	5/ 1	0	0	0	5/ 1	0	0	4/17	4/21	5/ 2	4/10	0	4/27	0	5/17	5/ 1	5/ 1	4/27	5/ 1
Chestnut-sided Warbler	5/ 4	5/ 7	5/ 1	5/ 9	--	5/ 7	5/11	5/10	5/ 1	5/ 6	5/ 8	5/ 6	0	5/ 1	0	5/ 9	0	5/ 8	0	5/ 1
Bay-breasted Warbler	--	5/ 8	0	0	0	0	0	0	5/15	5/ 7	5/ 8	5/ 8	0	5/ 1	0	0	0	0	0	0
Blackpoll Warbler	5/ 6	5/ 8	0	0	0	5/24	5/ 1	5/15	5/ 8	5/ 3	5/ 9	5/ 6	5/10	5/ 8	0	5/11	5/ 1	5/ 8	0	--
Pine Warbler	3/30	4/13	5/ 1	4/13	0	0	4/13	5/ 1	0	3/15	5/ 1	5/ 1	0	5/ 1	--	4/ 1	4/11	3/26	4/ 9	--
Prairie Warbler	4/25	5/ 1	5/ 1	5/ 1	0	5/ 1	4/29	4/26	4/21	5/ 1	5/ 1	5/ 8	5/ 1	5/ 1	--	4/29	5/ 1	5/ 1	4/19	5/ 1
Palm Warbler	4/18	4/11	0	0	0	0	4/14	4/11	4/10	--	4/10	0	0	4/20	0	0	--	--	--	--
Ovenbird	4/27	5/ 1	5/ 1	6/ 3	--	5/ 6	5/ 1	4/28	5/ 1	4/22	4/24	5/ 1	4/30	5/ 1	--	4/25	5/ 1	5/ 1	--	5/ 1
Northern Waterthrush	5/ 2	5/ 1	5/ 1	5/ 1	5/ 1	5/ 1	5/ 1	5/ 1	5/ 1	5/ 1	5/ 1	5/ 8	0	--	--	4/28	0	5/ 1	0	5/ 1
Louisiana Waterthrush	4/14	4/18	5/ 1	4/20	--	4/15	4/25	4/17	3/22	4/30	4/20	4/10	--	--	4/12	--	--	--	--	--
Kentucky Warbler	5/ 3	5/ 1	0	--	--	5/ 8	--	5/15	5/ 2	5/ 1	5/ 1	5/ 8	5/10	5/ 1	--	5/ 1	--	5/ 1	--	5/ 1
Mourning Warbler	--	--	0	0	0	5/18	0	0	5/26	5/18	5/29	0	0	0	0	0	0	0	0	0
Yellowthroat	4/21	5/ 1	5/ 1	5/ 4	5/ 1	5/ 1	4/29	5/ 1	4/25	4/22	4/26	5/ 1	4/30	5/ 1	5/ 1	4/17	4/17	5/ 1	4/27	5/ 1
Yellow-breasted Chat	5/ 2	5/ 7	--	5/ 7	5/28	5/10	5/ 1	5/ 6	5/ 1	5/ 3	5/ 8	5/31	5/ 1	--	--	5/ 7	--	5/ 2	5/ 7	5/ 8
Hooded Warbler	4/29	5/ 1	--	6/ 3	--	5/ 4	5/ 1	5/ 1	5/ 1	4/27	5/ 1	4/24	5/ 1	5/ 1	0	0	0	0	0	5/ 1
Wilson's Warbler	5/12	5/ 8	0	0	0	0	5/ 6	5/10	5/ 1	--	5/ 8	5/ 8	0	0	0	0	0	0	0	0
Canada Warbler	5/ 6	5/ 8	--	0	0	0	5/11	5/ 8	5/ 8	5/ 7	5/17	5/ 8	0	--	0	5/11	0	0	5/15	5/ 1
American Redstart	4/29	5/ 1	--	5/ 9	--	5/ 1	4/29	5/ 1	4/24	4/26	5/ 1	5/ 1	--	--	0	5/ 5	--	5/ 1	5/ 1	5/ 1
Bobolink	5/ 6	5/ 4	5/ 1	0	0	5/ 8	5/ 1	5/11	5/ 7	5/ 1	5/ 8	5/ 8	0	--	0	5/ 1	0	5/ 1	5/ 8	5/ 8
Orchard Oriole	5/ 2	5/ 1	0	0	5/ 6	--	4/23	5/ 1	5/ 1	4/26	5/ 7	5/ 1	--	4/28	--	5/ 1	--	5/ 1	--	5/ 8
Baltimore Oriole	4/30	5/ 1	5/ 1	5/ 1	5/ 1	5/ 1	4/29	5/ 1	5/ 1	4/22	5/ 1	5/ 9	4/26	5/ 1	--	5/ 1	5/ 1	5/ 1	4/24	5/ 8
Scarlet Tanager	4/28	5/ 1	--	5/ 1	--	5/ 8	5/ 1	5/ 1	5/ 1	4/26	5/ 2	5/ 8	5/10	5/17	5/20	4/28	5/ 1	5/ 1	5/ 1	5/ 2
Summer Tanager	5/ 3	5/ 6	0	0	0	0	0	0	5/ 5	5/11	--	5/ 8	0	0	0	5/ 3	0	5/ 1	--	5/ 8
Rose-breasted Grosbeak	5/ 4	5/ 5	--	5/ 9	5/ 1	5/ 8	5/ 2	5/ 9	5/ 1	5/11	5/ 5	5/ 1	0	5/ 1	0	5/10	5/ 1	0	0	5/ 8
Blue Grosbeak	4/30	5/ 8	0	0	0	5/ 8	0	5/12	--	5/19	5/26	5/ 4	0	5/17	5/ 1	4/29	--	5/ 1	0	5/ 8
Indigo Bunting	5/ 1	5/ 1	--	5/ 1	5/ 6	5/ 8	5/ 1	5/ 9	4/26	5/ 7	5/ 2	5/ 8	5/10	5/ 1	5/15	5/ 1	5/ 1	5/ 1	5/ 1	5/ 1
Grasshopper Sparrow	4/30	5/ 1	--	0	5/10	5/ 1	5/ 1	5/ 1	5/ 8	--	5/ 8	5/ 8	5/ 1	5/ 1	--	4/24	--	5/ 1	5/ 1	5/ 8
White-crowned Sparrow	5/ 4	5/ 1	0	5/ 1	4/24	5/ 1	--	4/29	4/28	0	5/ 5	--	0	5/ 1	4/30	5/ 1	5/ 1	--	0	--
Swamp Sparrow	--	4/21	5/ 1	4/12	5/ 1	--	4/24	4/29	4/10	4/21	4/10	3/27	--	--	--	--	--	--	--	--

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this column. Conversely, unsubstantiated reports of unusual birds or of birds seen out of season generally do not get into print at all. Rarely is it feasible to list the names of all observers who have contributed dates for any given county; an effort is made, however, to list first those persons who have contributed the most data from each county. In the case of joint observations, the trip leader or the person who submits the report is the one most likely to be cited first unless credits are specified in the report.

Principal contributors to the present tables are as follows:

Garrett County--Carl W. Carlson, Kendrick Y. Hodgdon; Allegany--James Paulus, Kendrick Hodgdon; Washington--Alice Mallonee, Daniel Boone; Fred-
erick--John W. Richards, Paul W. Woodward, Edwin T. McKnight; Baltimore
City and County--Etta Wedge, C. Haven Kolb, Mr. and Mrs. Walter Bohanan,
Mrs. Richard D. Cole, David Holmes, Mrs. Joshua Rowe, Mrs. William Pope;
Howard--Mrs. Dorothy Rauth, Mrs. Rosamond Munro, Robert Mallalieu, Morris
R. Collins, Ted Van Velzen; Montgomery--Paul Woodward, Dr. Fred G.
Evenden, Chris Petrow, Charles F. Hills, Mr. and Mrs. Richard Rule;
Prince Georges--Charles Hills, John H. Fales, Chandler S. Robbins, Elwood
Martin; Anne Arundel--Prof. and Mrs. David Howard, Prof. Harold Wierenga,
Danny Bystrak, Paul DuMont; Calvert--John Fales, Chandler Robbins;
Cecil--Dr. Edgar E. Folk, Charles Hills; Kent--Mr. and Mrs. Edward
Mendinhall, Charles Hills; Queen Annes--Mr. and Mrs. Robert Mallalieu,
Jan G. Reese; Caroline--Marvin W. Hewitt, Mr. and Mrs. A. J. Fletcher,
Mrs. Alicia Knotts, Mrs. Ethel Engel; Talbot--Jan Reese, Harry T.
Armistead; Dorchester--Harry Armistead; Somerset--Mrs. Richard D. Cole,
Mrs. William Pope; Worcester--Dr. Donald Messersmith, Mr. and Mrs. Lyman
Bryan, David Holmes, Dr. and Mrs. Bert Haines, Mrs. Carol Scudder.

Loons, Grebes. Although there are scattered Maryland records of the Common Loon right through the month of June, the lateness of the season this year leads us to conclude that a high-flying individual spotted over the Deal Island Wildlife Management Area in Somerset County on June 5 (Harry Armistead) should be considered a three-day extension of the State departure record rather than a summer stray. A Red-throated Loon identified at Hoopers Island on May 1 is a rarity for Dorchester County, and counts of 47 Horned Grebes on May 1, and 3 on May 8, also in Dorchester County, reflect the lateness of the spring migration (Armistead).

Shearwaters, Petrels. Thirty mile-an-hour onshore winds accompanied by heavy rain swept 9 shearwaters close enough to Ocean City inlet so they could be seen from land on May 16. One Sooty and 2 Greaters were identified and 6 other "black and white types" were observed under less favorable circumstances (Paul DuMont and Richard Rowlett). Two Sooty Shearwaters were seen on the Montgomery Chapter's boat trip off Ocean City on May 22 (Dr. R. L. Pyle). The early arrival record for the Wilson's Petrel was broken on May 8 when one was seen off Ocean City during the M.O.S. Convention.

Hérons, Egrets and Ibis. Cattle Egrets appeared inland at piedmont locations from Mar. 20 (Hughes Hollow turf farm above Seneca by Chris Petrow and Ted Eliot) to June 8 (Long Green in Baltimore County by

Barbara Larrabee). They were found in all but two coastal plain counties, and as far inland as Frederick (Statewide Bird Count, May 1). Glossy Ibis, by comparison, remained much closer to the nesting colonies; but Paul Woodward noted 2 to 4 as far inland as Hughes Hollow (Mar. 29 to Apr. 9), 3 were seen in Baltimore County on the Statewide Count (May 1), and one was found by Prof. Wierenga at Sandy Point State Park during a rain storm (May 12), and 17 were at Sycamore Landing above Seneca on May 21 (Woodward). Yellow-crowned Night Herons (at least 3) were back at Lake Roland this spring and were presumed to be nesting (Alice Marotti). A pair summered for the second year in a row in Washington County (Daniel Boone), and 5 adults fed regularly at Sycamore Landing in June (Paul W. Woodward). Armistead contributed several significant records from the Lower Eastern Shore: a Louisiana Heron at Blackwater National Wildlife Refuge on the record-breaking date of Apr. 24; a high count of 32 Black-crowned Night Herons in southern Dorchester County on May 1; 9 Least Bitterns, 234 Glossy Ibis, and 50 Louisiana Herons at the Deal Island Wildlife Management Area on June 5 (from a previously unreported heronry on Little Deal Island); and a healthy heronry at Bloodsworth Island as well! Dr. Mitchell Byrd and Robert Kennedy visited the heron colony off South Point at the head of Chincoteague Bay on May 17 and estimated the following breeding pairs: Glossy Ibis, 510; Snowy Egret, 450; Little Blue Heron, 400; Cattle Egret, 300; Louisiana Heron, 210; Common Egret, 200; and Black-crowned Night Heron, 40.

Waterfowl. Mute Swans are continuing to increase in the Miles River area of Talbot County; 10 birds had wandered into the Bellevue area by June 21 (Armistead). A pair of Shovelers was found in the Fairmount Wildlife Management Area on June 5 (Armistead); a pair on this date in such a favorable location suggests possible breeding, although there is not yet a breeding record of this species for Maryland. As a direct consequence of the cold spring, there were numerous records of high counts of waterfowl late in the season and of individual stragglers on dates beyond the normal migration period: a flying Brant at Deal Island on June 5 (Armistead), 2 drake Redheads, 1,375 Lesser Scaup and 83 White-winged Scoters in Dorchester County on May 1 (Armistead), 85 Ruddy Ducks at Elliott Island as late as May 8 (Armistead), an adult male Common Eider at Ocean City inlet on April 3 (Dr. Fred Evenden), about 20 King Eiders there on the same day and a very late immature male King Eider seen by over 100 observers at the Ocean City Convention on May 8. Nine Common Scoters and 50 White-wings were still in Talbot County on April 17; single American and Surf Scoters at Cambridge on June 8 may have been summer stragglers as were single Canvasback, Lesser Scaup and Oldsquaw and 4 Red-breasted Mergansers in Talbot County on June 24 (Reese).

Eagles. From all reports, Bald Eagles had a good nesting season in Southern Maryland and on the lower Eastern Shore. As usual, the highest counts came from the vicinity of Blackwater Refuge.

Limpkin, Rails and Gallinules. The most exotic report of the season concerned a Limpkin that was discovered by Richard Rowlett at Lily Ponds in Frederick County on May 25. The bird was subsequently seen by many other observers and was last viewed on June 8. Its admission to the

official Maryland list hinges upon whether the identification can be verified from distant photographs. Mr. Armistead conducted a search for rails at the Wildlife Management Areas in Somerset County on June 5 and met with superb success (see his account on page 111 of this issue). His list for Fairmount includes 1 King Rail, 14 Clappers, 10 Virginias, 1 Sora, 1 Black Rail, 3 Common Gallinules and 1 coot. At Deal Island he had 3 Kings, 9 Clappers, 11 Virginias, 10 Black Rails, 12 Common Gallinules and 11 coots! (Note the scarcity of gallinules as compared with last year.) Dr. Prescott Ward taped a Black Rail call at Carroll Island in June, confirming the first record of this species for Baltimore County. The elusive Black Rail has now been found in 9 of Maryland's 23 counties. A Yellow Rail was flushed from a field of tall dead grass at Henry's Crossroads south of Vienna on May 5 by Raymond Blicharz, Robert Ridgely and John Gwynn (Atlantic Nat. 26: 124-125). A Purple Gallinule seen at the Patuxent Wildlife Research Center on May 10 by Chandler Robbins and Ronald Youngman is only the second one recorded in Prince Georges County. This is the first (and probably the last) time that all native North American species of the families Aramidae and Rallidae have been recorded in Maryland within a 4-week period.

Shorebirds. At the edge of the South Point heronry on May 17, Dr. Byrd and Kennedy found an American Oystercatcher nest with 6 eggs--twice the normal complement. The shorebird migration at the coast was quite routine, with no rarities or unusual concentrations. Of local interest at Bay-side locations were 2 Willets on May 12, a Ruddy Turnstone and a White-rumped Sandpiper on May 13, and eight species of shorebirds including another White-rump on May 26, all at Sandy Point State Park (Prof. Wierenga); a Ruddy Turnstone in Kent County on Apr. 21 (Mendinhalls), one at Sandy Point on May 8 (Paul DuMont) and another at Cambridge on June 8 (Reese); 5 White-rumped Sandpipers at Blackwater Refuge on May 1, one day ahead of the earliest State arrival record and 12 there on May 8, setting a new high spring count for Maryland (Armistead). Phenomenal for the Ridge and Valley Section of the State was a concentration of 9 species of shorebirds at Rouge Lagoon near Old Town on May 8 (James Paulus); especially noteworthy were 4 Ruddy Turnstones (first Section record), a Semipalmated Plover and 2 Dunlins. Paul DuMont and Richard Rowlett spotted a female Red Phalarope at Ocean City inlet on May 16, the only phalarope report of the spring; on the same day they estimated 550 Ruddy Turnstones and 625 Black-bellied Plovers. The fall migration began on June 20 when Robert Warfield sighted the first southbound flock of (10) Willets flying high over West Ocean City.

Gulls and Terns. The combination of a late season and a very low tide resulted in a high count of 425 Herring Gulls at Barren Island on May 1 (Armistead). The nesting colonies of this bird in Sinepuxent Bay continue to grow; in addition to three nests with eggs off South Point, Dr. Byrd and Kennedy counted 40 pairs at Robins Marsh and located 17 nests with eggs on May 17. Laughing Gulls at the latter colony had just started to lay, but a few birds had full clutches of 3. DuMont and Rowlett saw a late immature Little Gull at Ocean City inlet on May 16, tying the State departure record. A Glaucous Gull, discovered in the winter by the Kent County Juniors, was still present at the Chestertown

bridge on Apr. 9. Jan Reese saw 2 Royal Terns as far up the Bay as the Chesapeake Bay Bridge on Apr. 18. Dr. Lawrence Murphy checked the Least Tern colony at Sandy Point on five June dates and determined that at least 11 downy young hatched, of which at least 4 were still alive at the end of the month.

Doves, Owls. There is still a Ringed Turtle Dove roaming the North Baltimore area; it visited Pauline Volmer's feeder on June 21. Good owl counts for the period were 11 Barreds in lower Kent County on May 11 (Hills) and 3 Long-ears on the back side of Deep Creek Lake in Garrett County on both May 1 and May 2 (Carl W. Carlson).

Goatsuckers, Hummingbirds. There were two Baltimore records of the Chuck-will's widow in June, well north of the breeding range: one calling at Monkton on the 4th (Mrs. Andrew Simon) and one taped at Carroll Island (Dr. Ward). The male Rufous Hummingbird seen and heard by Richard Rowlett at Lily Pons in Frederick County on the May 1 Statewide Bird Count was the first spring sighting of this species in Maryland; details were published in the Atlantic Naturalist (26: 125-126). Ruby-throated Hummingbirds were believed by some observers to be scarcer than usual this year; however, the total of 22 recorded on May 1, 1971, as compared with 97 on May 2, 1970, probably reflects their late arrival this year rather than a serious drop in the population.

Flycatchers. Nearly all of the Yellow-bellied Flycatchers reported were found during the brief period May 29 to June 2. The highest count was of 3 singing birds on Town Hill, May 29 (Carlson), and the only coastal plain record was a singing bird at Java Farm in Anne Arundel County on June 2 (Wierenga). Traill's Flycatchers of the 'fitz-bew' song type continue to increase as breeding birds in the Maryland piedmont. Bruce Beehler found 4 singing males just south of Butler in Baltimore County, June 5-11; Robbins had 1 to 2 males at each of 4 locations in Columbia, Howard County from mid-June into July; and Montgomery Chapter members recorded this species in 6 of their Atlas blocks. Paul Woodward had one bird at Hughes Hollow that sang the 'way-be-o' song of the northern form; previously this song has not been heard in Maryland east of Garrett County during the nesting season. The southernmost report of Traill's Flycatchers was from the edge of the Patuxent River marsh at Upper Marlboro, where Dr. Lawrence Murphy heard 2 males singing on June 10; although these could have been late transients on this date, the locality should be checked in future years on the possibility that nesting occurs there.

Swallows. Five Cliff Swallows at Blackwater Refuge on May 1 (Armistead) were new for Dorchester County; this is a scarce migrant anywhere on the Eastern Shore, but 30 others were seen in Caroline County, also on May 1. A new Bank Swallow colony of about 28 active burrows was found in northeastern Dorchester County near Federalsburg by Harry Armistead on June 19; this constitutes an eastward extension of the nesting range in Maryland. Ten late transients at the Patuxent Wildlife Research Center near Laurel, where the species does not nest, broke the May 26 spring departure date by two days (Robbins).

Jays, Raven. The Blue Jay was one species whose migration was not appreciably delayed by the cold weather. The drop from 14,591 birds on May 2, 1970, to 10,007 on May 1, 1971, could be explained entirely on the difference in weather conditions on the day of the Statewide Bird Count. In neither year were more than an armful still migrating north in early June. For the second successive spring a Common Raven was identified in Washington County--this time at Indian Springs on May 15 (Carlson); no nest of the raven has been found in Maryland since 1950.

Thrushes. Wood Thrushes have at last recovered from the slump of the previous seven years. The number captured in 6 days of a standardized netting operation at the Patuxent Wildlife Research Center ranged from 42 to 57 per year in 1959-63; it dropped to 18 to 36 for the period 1964-70, then rose to 49 in 1971 (Robbins). The slump had not resulted just from poor reproduction, but from a low rate of return of adult breeding birds. The average number of returns of adult birds during the slump years was 5.6, but in 1971 there were 20 returns from previous years. Veeries, which averaged only 0.6 birds per year, did not increase during the period when the Wood Thrush population was down. Three singing male Veeries were on territory along the Middle Patuxent River at Columbia, the first summer records for Howard County (Robbins). The Varied Thrush that wintered at Mrs. McHale's feeder in Towson was last seen on Apr. 11.

Waxwings. Appearances of the Cedar Waxwing were so sporadic as to defy interpretation. Nomadic flocks of wintering birds turned up in several counties in January and February (see the table in Maryland Birdlife 27: 74, June 1971). Subsequent arrivals were reported almost weekly from March through early June (Tables 1 and 2 of this issue), with no general influx reported. Five birds seen near Galestown in Dorchester County on June 6 (Armistead) were probably late transients, but on June 19 nearly a hundred observers at the Baltimore Chapter's Junior Camp at Huntingtown watched an incubating Cedar Waxwing at the shore of the tidal Patuxent in Calvert County--the first nest record for Southern Maryland.

Vireos. Vireo populations were about normal, though first arrivals averaged 3 days late. Three Solitary Vireos by Armistead in Dorchester County (Hoopers Island and Blackwater) on May 8 were unusual as to date, location, and number; there are few spring records for that part of the State. The Philadelphia Vireo, a rarity in Maryland in spring, was seen in Prince Georges County on May 13 (Fales), in Montgomery County on May 19 (Dr. Evenden) and in Baltimore City on May 27 (Mr. and Mrs. Walter Bohanan).

Warblers. The lateness of the warbler migration was shown in several ways. The Blue-winged Warbler, a typical late April migrant, was not seen in Maryland until May. There was not a single April report of a Nashville, Cape May, Chestnut-sided, Blackpoll, Kentucky or Canada Warbler or Yellow-breasted Chat; and only one county had an April observation of the Worm-eating, Golden-wing, Magnolia, Cerulean, Blackburnian or Northern Waterthrush. The May 1 Statewide Bird Count yielded only 1 Golden-wing, 4 Blue-wings, 2 Magnolias, 5 Black-throated Blues, 2

Table 2. Spring Departure Dates, 1971

Species	Median 10-yr 1971	Garr	Alle	Fred	Balt	Howd	Mont	Pr.G	Anne	Calv	Kent	QuAn	Caro	Talb	Dorc	Somr	Worc
Common Loon	5/9 5/8	--	0	0	--	--	5/9	5/1 5/8	--	4/11	5/8	--	5/1 5/8	6/5 5/9			
Horned Grebe	-- 5/1	0	5/1	0	5/1	0	5/9	4/30 5/8	4/3 5/1	5/8	0	0	4/24 5/8	4/24	--		
Double-cr. Cormorant	-- 5/9	0	0	0	0	0	0	5/12	0	--	0	0	5/9 5/8	6/5 5/9			
Whistling Swan	4/21 5/1	0	5/2	--	5/11	3/26	4/10	4/8 3/26	3/28 5/8	5/22 5/1	4/17 5/8	--	5/8				
Canada Goose	4/30 5/5	0	0	0	5/1	--	5/5	5/5	--	3/14 5/8	5/11	5/1 5/8	--	5/9			
Pintail	-- --	0	0	0	5/1	0	--	--	--	5/8	--	--	--	5/8	5/22	--	
Green-winged Teal	-- 5/1	0	3/30	--	5/1	0	5/8	5/1	--	5/1	5/1 5/1	5/1 5/8	5/8	5/1	5/8	5/8	--
American Widgeon	-- 5/7	0	5/2	5/6	5/1	0	--	5/10	--	--	5/8	5/8	--	--	5/1	--	5/9
Shoveler	-- 4/27	0	4/2	0	5/1	0	0	--	--	0	5/8	4/23	0	0	5/1	0	4/17
Ring-necked Duck	-- 4/20	5/1 5/1	0	5/1	3/8	4/8	5/1	--	--	3/28	0	4/6	0	--	--	--	--
Canvasback	-- 5/1	5/1 5/1	0	--	0	0	5/8	--	--	5/8	4/9	0	5/1	--	--	--	4/17
Lesser Scaup	-- 5/1	4/17 5/8	5/1	--	--	5/8	4/8	--	--	4/3 5/1	5/1 4/5	5/1 5/1	4/24 5/8	4/17	--		
Bufflehead	-- 4/20	5/1 4/16	0	5/25	0	5/1	4/12	--	--	4/3	--	5/8	0	--	--	--	4/20
Oldsquaw	-- 4/12	0	0	4/10	0	0	4/7	--	--	3/27 5/1	5/1	0	4/12	--	--	--	5/8
Ruddy Duck	-- 5/4	0	5/1	0	0	0	--	5/8	3/27 5/11	5/8 5/1	5/1 5/8	5/1	5/1 5/8	--	--	--	5/8
Hooded Merganser	-- 4/30	0	2/25 4/30	0	--	--	4/23	0	0	5/1	0	0	0	--	--	--	5/8
Common Merganser	-- 5/1	5/1 5/1	0	5/9	3/6	5/1	--	5/8	5/1 5/1	0	4/2	0	0	--	--	--	5/1
American Coot	-- 5/7	5/1 5/21	5/8 5/6	0	5/21	5/14	5/8	--	--	5/1 5/1	5/1 5/1	4/17 5/8	5/1 5/9				
Semipalmated Plover	-- 5/24	0	6/7 5/21	--	0	0	0	5/26	0	0	5/28	0	5/27 5/8	5/8 5/9			
Black-bellied Plover	-- --	0	0	0	0	0	0	5/26	0	0	0	0	5/8	5/4 5/9			
Common Snipe	5/2 5/8	0	5/8 5/8	5/6	0	5/8	5/11 5/8	5/1 5/1	5/8 5/4	5/1 5/8	5/1	--					
Spotted Sandpiper	-- 5/10	--	6/10 5/8	5/22 5/1	5/24	5/11 5/30	0	5/8	5/17 5/1	5/1 5/8	5/15 5/9						
Solitary Sandpiper	-- 5/11	--	5/22 5/27	5/11 5/20	5/27	5/11 5/26	--	--	--	5/8 5/1	0	5/8	0	5/9			
Greater Yellowlegs	-- 5/8	--	5/1 5/14	5/6	0	6/2	0	5/26	--	5/8 5/8	5/6	5/1 5/8	6/10 5/9				
Lesser Yellowlegs	-- 5/8	5/1 5/28	5/14 5/6	5/1	5/8	5/1 5/8	0	5/8	5/8 5/1	5/1 5/8	6/5 5/8						
Pectoral Sandpiper	-- 5/8	0	--	5/14 5/1	0	5/8 5/17	5/8	0	5/8	0	5/1	5/1 5/8	--	5/8			
Least Sandpiper	-- 5/21	0	5/22 5/21	--	0	5/8	0	5/26	0	5/8	--	--	5/8	5/22	--		
Dunlin	-- 5/8	0	5/8 5/8	0	0	0	0	5/8	0	0	0	0	5/8	6/5 5/9			
Semipalmated Sandpiper	-- 5/26	--	6/7 6/12	0	0	0	0	5/26	0	5/8 5/28	0	5/27 5/8	5/15	--			
Ring-billed Gull	-- 5/8	--	6/7 5/16	5/1	0	5/12	--	5/30	5/1 5/8	5/8 5/1	5/1 5/8	5/8 5/9					
Bonaparte's Gull	-- 5/4	--	5/6	--	4/25	0	5/9	0	0	0	0	0	5/1 5/1	0	5/8		
Yellow-bell. Sapsucker	4/24 5/1	--	5/1 5/1	5/1	--	5/8 5/1 5/8	4/17 5/1	--	4/19	--	--	--	--	--	--	--	--
Blue Jay	5/14 6/4	--	--	--	6/13	--	6/4 6/6	5/9 5/24	--	--	--	--	--	--	--	--	--
Brown Creeper	4/22 4/26	5/1 5/1	--	5/1	4/30	4/11 4/12	4/17 4/18	5/1 4/21	--	--	--	--	--	--	--	--	--
Winter Wren	-- 4/29	0	4/20 4/24	5/1 5/1	5/1 5/1	4/29 5/8	4/24	--	--	--	--	--	--	--	--	--	--
Hermit Thrush	4/28 5/1	5/1	0	--	5/9 5/1	5/7 5/1	5/9 5/1 5/1	--	--	5/1 5/1	--	5/1 5/1	--	4/30 5/8			
Swainson's Thrush	5/14 5/26	0	0	--	5/29 5/16	6/3 6/3	--	5/23	0	0	5/18	0	0	0	0	0	0
Gray-checked Thrush	-- --	0	0	0	0	6/1 6/1	--	5/31	--	0	0	0	0	0	0	0	0
Veery	5/17 5/14	--	5/9	--	5/24 5/25	5/20 6/1	5/8 5/8	0	5/24	0	5/24	0	5/8	0	5/9		
Golden-crowned Kinglet	4/11 4/17	5/1 5/1	--	4/12	--	5/1 4/7 5/8	4/17 4/5	--	--	4/12	--	--	--	--	--	--	--
Ruby-crowned Kinglet	5/2 5/6	5/1 5/1	5/8 5/1	4/30	5/8 5/11	5/10 5/8	--	4/20 5/6	5/1 5/1	5/8 5/9							
Water Pipit	-- 5/4	--	0	5/8 5/1	0	5/8	0	5/8	0	5/1	0	5/1	0	0	0	0	0
Cedar Waxwing	-- 5/29	--	--	5/29	5/29	5/31 6/1	5/31	5/12	--	--	--	--	6/6	5/15 5/8			
Solitary Vireo	-- 5/8	--	--	5/8 5/1	5/8 5/18	5/26 5/1	5/1	0	0	0	0	0	5/8	0	5/9		
Golden-winged Warbler	-- --	--	5/10	0	0	5/12	--	5/9	0	0	5/10	0	0	0	0	0	0
Blue-winged Warbler	-- 5/9	0	0	5/10 5/11	5/1 5/24	5/7 5/9	5/8 5/8	0	5/10	0	5/8	0	5/8	0	5/9		
Tennessee Warbler	-- 5/18	0	--	0	5/23	5/20 5/24	5/18 5/17	5/8	0	0	0	0	5/8	0	5/8		
Nashville Warbler	-- 5/9	--	--	--	--	5/6 5/23	5/10 5/9	5/8	0	5/10	0	5/8	0	5/9			
Magnolia Warbler	5/19 5/26	--	0	0	5/27	5/30 5/15	5/26 6/1	5/31	--	0	5/23	0	5/11 5/8				
Cape May Warbler	5/10 5/12	0	0	5/10	0	5/18 5/12	0	5/13	0	0	5/9	0	0	0	0	0	0
Blk-thr. Blue Warbler	5/14 5/15	--	0	6/11 5/11	5/15 5/15	5/16 6/1	5/15	--	0	5/18	0	5/8	0	5/9			
Myrtle Warbler	5/10 5/10	--	--	5/8 5/11	5/10 5/19	5/16 5/17	5/31 5/8	5/8 5/14	--	5/8	5/10 5/8	5/10 5/8	5/8	5/10 5/9			
Blk-thr. Green Warbler	5/11 5/11	--	5/19	--	5/11 5/1	6/1 5/27	5/29 5/31	0	5/8 5/11	0	5/8	0	5/9				
Blackburnian Warbler	-- 5/21	--	--	5/11	0	5/12 6/1	5/30 5/31	0	0	0	0	0	0	0	0	0	0
Chestnut-sided Warbler	5/13 5/10	--	--	5/11 5/10	--	5/19 5/29	5/31	--	0	5/10	0	5/8	0	5/9			
Blackpoll Warbler	5/28 5/30	0	0	5/26 5/30	5/25 6/4	6/2 6/2	6/12	--	0	5/24	--	--	--	--	--	--	--
Palm Warbler	5/4 5/8	0	0	5/11	5/6 5/8	5/9 5/8	5/8	0	5/1	0	0	5/1	0	5/8	0	5/8	
Northern Waterthrush	5/17 5/14	--	6/9 5/8	5/11	--	6/1 6/1	5/17 5/8	--	0	5/26	0	5/8	0	5/8	0	5/8	
Wilson's Warbler	-- 5/31	0	0	0	5/11	5/28 5/31	6/2 6/1	--	0	0	0	0	0	0	0	0	0
Canada Warbler	5/20 5/29	--	0	0	5/24	5/18 6/19	6/5 5/31	5/31	--	0	5/27	0	0	5/15	--		
American Redstart	-- 5/26	--	--	--	--	5/27 5/31	5/22 5/26	6/5	--	0	5/24	--	--	--	--	--	--
Bobolink	5/16 5/8	--	--	--	5/16	--	5/24 5/14	5/8 5/8 5/14	0	5/5	0	5/8	5/9 5/8				
Rusty Blackbird	-- 5/8	5/1 5/7	0	--	--	5/9 5/10	5/8 5/8	--	5/1	--	5/8	--	5/9				
Rose-breasted Grosbeak	5/12 5/10	--	5/9	5/16 5/22	5/18	5/8 5/15	5/10 5/8 5/8	0	5/12	--	0	0	5/9				
Evening Grosbeak	5/6 3/21	4/18	0	2/15	--	3/18	0	3/21	0	0	5/3	0	0	0	0	0	0
Purple Finch	5/3 5/1	--	5/1 5/1	5/1	4/27	5/1 5/7 5/8	3/6 5/1	--	4/29	--	0	5/9					
House Finch	-- 5/1	0	0	--	5/1	0	5/1 4/29	5/8	0	5/1	0	3/30	5/1	--	--	--	--
Pine Siskin	-- --	0	0	0	0	5/1 4/23	5/8	0	0	5/5	0	0	0	0	0	0	0
Savannah Sparrow	5/6 5/1	--	--	5/8 5/1	5/1 5/24	5/1 5/8	5/1 5/1	5/1 5/1	5/1 5/1	5/1 5/1	5/1 5/8	5/12 5/9					
Slate-colored Junco	5/1 5/8	5/1 5/20	7/7 5/10	5/11	5/8 5/13	5/8	4/17 5/6	5/1 5/1	5/1 5/1	5/1 5/1	5/1 5/1	5/1 5/1	5/1 5/1	5/1 5/1	5/1 5/1	5/1 5/1	5/1 5/1
Tree Sparrow	-- 3/27	5/1 3/27	--	--	4/12	4/9 3/25	2/27 4/14	0	3/9	0	0	0	0	0	0	0	0
White-crowned Sparrow	5/13 5/8	0	0	5/15 5/8	5/6 5/11	5/8	0	5/10	5/8 5/8	5/12 5/10	--	5/8	0	5/9			
White-throated Sparrow	5/14 5/12	5/1 5/15	5/16 5/23	5/18 5/31	5/11 5/19	5/9 5/17	--	5/12	5/12	5/1 5/8	5/10 5/9						
Fox Sparrow	4/4 4/27	5/1 5/1	4/12 5/11	4/23 5/1	--	4/1 3/14	5/1	--	4/9	--	--	--	--	--	--	--	--
Swamp Sparrow	5/7 5/9	--	5/9 5/8	--	--	5/18	5/7 5/12	--	--	--	5/1	--	5/8	5/12 5/9			

Blackburnians, 5 Chestnut-sides, 1 Bay-breast, 3 Blackpolls, 5 Yellow-breasted Chats and 1 Canada Warbler--a total of 29 individuals of these ten species. On the 1970 count (May 2), these same ten species totaled 753 individuals. In 1970 there were 10 June entries for warblers (3 species) in the spring departure table. This year there are 16 entries, and the number of species represented jumped to a record high of 9. There were several record-breaking departure dates: a Blue-winged Warbler in Montgomery County on May 24 (H. E. Douglas); a Myrtle in Calvert County on May 31 (tie, John H. Fales); a Chestnut-side in Calvert County on May 31 (Fales); a Northern Waterthrush at Old Town in Allegany County on June 9 (Jim Paulus); and a Canada Warbler at Sycamore Landing in Montgomery County on June 19 (Douglas). A Black-throated Green Warbler, on the other hand, was seen at Herrington Manor in Garrett County on the extraordinarily early date of Apr. 17--by far the earliest ever recorded in the Maryland portion of the Allegany plateau (Carl Carlson). The only Orange-crowned Warbler reported was at Plum Point in Calvert County on May 1 (Fales). The Swainson's and Mourning Warblers also were omitted from the tables for lack of sufficient records. The Swainson's, as usual, was found only in the Pocomoke Swamp (April and May). The Mourning was seen in Frederick County (May 18, Douglas), at Sandy Point (May 29, 30 and 31, Prof. Wierenga), and at the Patuxent Wildlife Research Center (May 22 and 26, Robbins). A Lawrence's hybrid was seen in the Pocomoke Swamp above Whaleyville on two Convention field trips, May 8 and May 9. The following summer observations are of special interest: a Cerulean Warbler in Catoctin Mountain Park on June 20, a new summer species for Frederick County (Mrs. T. H. C. Slaughter); a pair of Louisiana Waterthrushes on June 19 at the north end of Lone Pine Road in northeastern Dorchester County, the first summer record for the county (Armistead); and 2 male Blue-winged Warblers throughout June--one scolding so vigorously that it almost certainly had young nearby--along the Middle Patuxent River in Columbia (Robbins, Paul Wagner and others), which is southeast of the known breeding range of the species.

Grackles. Six Boat-tailed Grackles were plainly seen in marsh grass at Sandy Point State Park on May 8 (Luther Goldman). Equally unusual was a single individual in the Bay Hundred District of Talbot County on Apr. 12 (Jan Reese). This species rarely wanders north of its nesting grounds, which in Maryland's portion of Chesapeake Bay are limited to the marshes of Somerset County.

Finches. Northern finches were unreported during the period, except for the few entries of Evening Grosbeaks, Pine Siskins and Purple Finches in Table 2. House Finches departed from most feeders between Apr. 24 and May 1. An early House Finch nest with 4 finch eggs and a Brown-headed Cowbird egg in Guilford (Midge Nelson) was the first known to be parasitized by a cowbird in Maryland. A male House Finch was seen in the Howard Park section of Baltimore on June 2 and June 5 (John Poteet) and a pair was on the Homewood Campus of Johns Hopkins University in Baltimore City on May 22 (Dr. Storrs L. Olson). The southern breeding limit for the recently established eastern population is College Park, where birds were seen throughout the summer for the second time (Dr. Lawrence Zeleny). Carl Carlson and Paul DuMont estimated 20 to 25

Dickcissels along Oland Road south of Buckeystown on May 29; since this road is less than a mile long this represents quite a dense population for a "colony" so far removed from the principal breeding range of the species in the interior of the continent.

Sparrows. On May 6, Prof. Wierenga counted 12 Seaside and 6 Sharp-tailed Sparrows at Sandy Point State Park at the very northern limit of the Chesapeake Bay breeding range of both species. The secretive Lincoln's Sparrow was reported only twice in Maryland this spring: one banded by Dr. Robert Pyle at his Chevy Chase home on May 6, and another banded at Hughes Hollow on the record-early date of Apr. 30 (Woodward).

Bureau of Sport Fisheries and Wildlife
Migratory Bird Populations Station, Laurel

HURRICANE-BORNE WILSON'S PETREL IN CHESAPEAKE BAY

Robert Sharp II

It was Saturday afternoon on August 28, 1971. Much earlier, about 2 a.m., Hurricane Doria's side effects had blustered through with winds of 35 or 40 m.p.h. and the last of the seven or eight inches of rain dumped along the Eastern Shore.

Now it was clear and beautiful, with a steady breeze of some 14 knots out of the northwest. My wife and I were aboard *Bligh Spirit*, having enjoyed a brisk sail out the Miles River and into the Wye River. We were looking for a quiet anchorage for supper and to spend the night.

Once inside the sheltering shores of the Wye, the seas of Eastern Bay subsided, and we glided along silently in the sparkling waters of this scenic river. Since entering the Wye, we had noticed a fairly steady flow of Barn Swallows and Tree Swallows flicking over the water in a southerly direction. Then on glancing off our starboard beam—another swallow? It was coming toward us, all dark and a shade smaller than a Purple Martin, but it had longish dangling feet, and it was dancing and dipping over the water as only a petrel can. It banked away from us, and there was a distinct white band across its rump, and a good look at the rounded tail. Surely a Wilson's Petrel (*Oceanites oceanicus*). As we watched its light-hearted flight toward the Bay, we wondered how many other sightings have been made at inland locations. We found that Stewart and Robbins in *Birds of Maryland and the District of Columbia* (1958) cited three old (1842 to 1914) records from the Potomac River and three slightly more recent (1915 to 1925) observations from the Chesapeake shore of Calvert County. The only other Maryland record away from the open ocean is from Chincoteague Bay (9 birds on July 3, 1945). All Maryland sightings from inland waters are in the period June 21 to August 28.

Easton

 IN MEMORIAM - MYRTLE SIMONS PELOT

The Caroline Chapter and M.O.S. lost an ardent and dedicated member when Mrs. Charles Pelot passed away on May 22, 1971. Myrtle Pelot was one of those selfless persons whose whole concern is for someone in need or for a worthy cause. The care she lavished on others set her apart, and her interest in and devotion to our Society and its sanctuary program was little short of a passion.

V.E.U.

M.O.S. BOOK STORE

The Book Store carries a large supply of natural history books, records, stationery, and sundry items for your convenience. When ordering by mail, add 4% sales tax, postage and 25¢ handling charge. Make check payable to the M.O.S. Book Store, 1523 Pentridge Road, Baltimore, Maryland 21239.

MOST RECENT BOOKS

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Birds of the Northern Forest - Lansdowne	20.00
Birds of the Eastern Forest, Vol. 1 - Lansdowne	20.00
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Wildflowers of the United States, Vol. 1 - Rickett	33.50
Living Reptiles of the World - Schmidt & Inger	13.50
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The Baltimore Trail Book - Mittenthal	3.50
Birder's Life List and Diary - Dietert	2.25
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Birds of North America - Robbins (hardback)	5.25
Birds of North America - Robbins (paperback)	3.50
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Attracting Birds from the Prairie to the Atlantic - Davison	5.95
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Stalking the Good Life - Gibbons	5.25
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A Field Guide to the Birds of East & Central Africa - Williams	5.50
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Peterson Field Guide Series	5.25
Bent's Life Histories - prices vary	

CHILDREN'S BOOKS

Gerbils and Other Small Pets - Shuttlesworth	3.95
The First Book of Bees - Tibbetts	3.00
Wonders of the Butterfly World - Simon	3.20
To Be A Bee - Rosen	3.00
Wonders of the Seashore - Merrill	3.20

SUMMARY OF CHESAPEAKE BAY OSPREY REPRODUCTION IN 1971

Jan G. Reese

The Chesapeake Bay Osprey studies I began in 1963 were continued in 1971 with financial assistance from the MOS. For details of studies of previous years, refer to the literature cited below.

In the Talbot County study, I located 136 active nests in 1971, 105 of which were accessible for study (contents could be seen). I found 91 nestlings in the 53 accessible nests that contained young, for an average of 1.7 nestlings per productive nest. This is the lowest productive nest average since 1968, when it was 1.7. When the unproductive active nests are included, the average number of nestlings per nest in 1971 was 0.87, the lowest average since 1964. Weather was the most significant factor decreasing productivity in 1971; wind killed 15 nestlings.

In the Queen Annes County study, I located 31 active nests in the same area I have surveyed twice annually since 1966. Of these, 26 were accessible for study. I found 19 nestlings in the 9 successful nests, for an average of 1.9. This is the largest number of young per active nest in the six years of this study. The average number of nestlings per active accessible nest (including unsuccessful nests) was 0.65, the lowest since 1968.

In the Choptank River area which I have surveyed twice annually since 1968, I located 27 active nests of which 22 were accessible. I found 16 young in the 10 successful nests, for an average of 1.6. The average number of young based on all nesting attempts was 0.73. Both these productivity averages are the lowest observed in the four years.

Detailed progress reports of Osprey reproduction in these three Chesapeake Bay areas in 1971 are available on request from the author.

Reese, J. G. 1965. Breeding status of the Osprey in central Chesapeake Bay. *Md. Birdlife* 21: 105-108.

---- 1968. Breeding Osprey Survey of Queen Annes County, Maryland. *Md. Birdlife* 24: 91-93.

---- 1969. A Maryland Osprey population 75 years ago and today. *Md. Birdlife* 25: 116-119.

---- 1970. Reproduction in a Chesapeake Bay Osprey population. *Auk* 87: 747-759.

PROGRESS REPORTS:

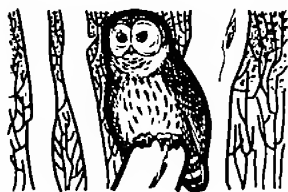
---- Osprey Survey, Talbot County, Maryland. Mimeo. reports: #6 (1970) and #7 (1971).

---- Breeding Osprey Survey at Queen Annes County, Maryland. Mimeo. reports: #2 (1969), #3 (1970), and #4 (1971).

---- Miscellaneous reports on Osprey reproduction. Mimeo. reports: #1 (1969), #2 (1970), and unpublished manuscript (1971).

Box 298, St. Michaels

THE PRESIDENT'S PAGE



HAND-REARING A BLUEBIRD FAMILY

As I start to write this account on Labor Day 1971, a beautiful 33-day-old Eastern Bluebird (*Sialia sialis*) has just alighted gently on my shoulder from a nearby tree. He is warbling sweetly but insistently in my ear, telling me in unmistakable bluebird language that it is time to eat even though he just gorged himself a half hour ago. Soon he will be joined by his equally beautiful and hungry brother and sister and the three of them will make such a clamor that I will have to lay down my work and stuff the three gaping mouths with the unnatural but well-balanced bluebird diet mixture from our kitchen. These charming adopted orphans will linger a minute or so after eating, expressing their satisfaction with soft murmuring sounds seldom heard by man. Then they will fly out of sight to explore more of their new world only to return half starved in another 30 minutes or so. They are wild and free, but not yet sufficiently experienced to find more than a small part of their own food.

It all began on the early morning of August 14 when I was monitoring the few remaining late broods on my "bluebird trail" near Beltsville, Maryland. I knew that nesting box No. 325 should contain four 10-day-old nestlings, nearly the last of the 193 young bluebirds fledged on the Beltsville trail this year. On opening the box I was dismayed to find that the nestlings appeared to be dead. I removed the nest and on closer examination found that three of the nestlings showed the faintest perceptible signs of life, but the fourth was unquestionably dead. The three live nestlings were limp, almost motionless, and completely cold, no warmer to the touch than their dead sibling. It seemed probable that the parent birds had somehow been killed on the preceding day and that the nestlings had not eaten for 20 hours or more.

My first impulse was to discard the brood and proceed with my monitoring since these nestlings seemed to be beyond any reasonable hope. This I probably would have done if they were anything but bluebirds. But baby bluebirds are too precious to abandon if there is even the faintest hope of saving them. So I opened my shirt, held the cold babies against my body to warm them, and drove with one hand over the the nine miles of road to my home. By the time I arrived, the birds were warmer and were beginning to move. They were still too weak to utter a sound or open their mouths, so we force-fed them every few minutes with very small pieces of raw beef. Within an hour they had regained enough strength to open their mouths feebly for food and to chirp very faintly. By the end of the day they

were alert, strong, very vocal, and were clamoring for food almost incessantly. To me, their recovery was a miracle.

For the next five days the nestlings were kept in a paper towel nest in a small box. About every 20 minutes from dawn to dusk my wife or I fed them and removed the fecal sacs as all good bluebird parents do. We always whistled before offering them food so that they would learn to associate our whistle with feeding time, an important lesson for them after they were later released. The amount of food they consumed and their rate of growth seemed incredible. During this period we felt free to go where we wished as we could easily take the birds with us. They were fed frequently en route on one 150-mile trip.

When the birds were 19 days old, about the normal fledging age, they scrambled from the box, stretched their wings, and made short flights. Rather than release them then, however, we transferred them to a small flight cage where we spent two days teaching them another difficult lesson which would be important after their release. This lesson was that they must come to us to be fed rather than insisting that we come to the tops of the trees to feed them as all good bluebird parents should do.

The young bluebirds were released on August 25 at the age of 21 days. They flew remarkably well and reveled in their freedom, but returned every half hour or so for food. Now at 33 days they are nearly full grown, well developed, and incredibly beautiful. They range over a considerable area, have learned to drink and bathe at our bird bath, and are finding some of their own food. They stay close together at all times and are often seen huddled tightly together on a branch, particularly when it rains. They respond to our whistle when they are out of sight and they call insistently to us near our back door if we do not appear with food at the proper time. They alight without fear on our heads, shoulders, or hands to be fed, and often remain there warbling softly or pecking us ever so gently long after they have eaten. To them, we are their parents and it is easy to imagine that they have the same affection for us that we have for them.

Based on our experience of three years ago in raising orphaned bluebirds, we believe that our birds will soon be completely independent of us but will continue to return to our hands occasionally for choice tidbits and a little friendly "conversation." They will probably eventually find and join a small flock of bluebirds and in late fall move farther south. We hope for their sake that they will live and behave like normal bluebirds, and that they will forget their strange upbringing and learn to regard man in his proper light as one of their natural enemies.

No one should attempt to hand raise wild young birds unless he is positive that they are orphaned or abandoned. Too often well-meaning people unwittingly kidnap young birds in the mistaken belief they are not being cared for. But in cases where nestlings can be saved from certain death their temporary adoption is justified and can be a most rewarding experience. One gains an insight into wild bird nature that can be obtained in no other way.

In the case of our bluebirds there can be no doubt that limited two-way vocal communication has been established with them which is clearly understood by both bird and man. There is also evidence of mutual affection, but this, of course, would be difficult to prove. One who has had an experience like this, however, may find it hard to believe that all bird behavior is guided by instinct alone.

Lawrence Zeleny

IN MEMORIAM - MALCOLM F. THOMAS

"Mac", as he was known in the M.O.S., passed away suddenly on June 29. He was an active member of the Baltimore Chapter, having been the Treasurer for eight years, the Vice-President for three years, and he had been elected a State Trustee in 1971. As a board member, he will be remembered as a clear thinker; and as a trip leader he will be remembered as a good companion with a keen sense of humor as well as an able leader. He was the organizer of the Nag's Head, North Carolina trips.

Memorial services for Mac were held at the Sandy Springs, Maryland, Friends Meeting House and he was laid to rest in the beautiful, old, adjoining cemetery which is close to his boyhood home. We miss him greatly.

Alice S. Kaestner

COMING EVENTS

- | | | | |
|------|----|--------------|--|
| Nov. | 3 | KENT | Regular Meeting. Chesapeake Bay Ospreys by Jan Reese. |
| | 4 | FREDERICK | Meeting. Appalachian Trail by Col. Lester Holmes. |
| | 5 | ANNE ARUNDEL | Monthly Meeting. Whistling Swans by Mrs. W. Innes. |
| | 5 | HARFORD | Dinner Meeting at Churchville Presbyterian Church. |
| | 6 | BALTIMORE | Trip. Sandy Pt. and Corcoran Woods. Harold Wierenga. |
| | 8 | KENT | Audubon Film, Shandon Hills by Greg McMillan. |
| | 9 | TALBOT | Audubon Film, California Coastal Plain by G. McMillan. |
| | 9 | BALTIMORE | Meeting. The Physiology of Birds by C. S. Robbins. |
| | 10 | ANNE ARUNDEL | Trip. Sandy Pt. State Park. Mrs. M. Gordon Steen. |
| | 13 | HARFORD | Trip. Bombay Hook Refuge and Little Creek, Del. |
| | 13 | ANNE ARUNDEL | Trip. Bombay Hook and Little Creek. Mrs. Gizzarelli. |
| | 13 | BALTIMORE | Trip. Blackwater Refuge & Elliott Is. Taylor McLean. |
| | 13 | FREDERICK | Trip. Tresselt's Fish Ponds. |
| | 16 | CAROLINE | Meeting. Water Bird Slides by Roy Cassel. Co. Library. |
| | 17 | ALLEGANY | Annual Banquet. America's Bluebirds by Lawrence Zeleny. |
| | 18 | MONTGOMERY | Meeting. Birds of South Africa by Don Messersmith. |
| | 18 | ROSSMOOR | Final Meeting. Winter Bird Identification by C. Robbins. |
| | 19 | TALBOT | Meeting. Chesapeake Bay Conservation by A. W. Sherwood. |
| | 20 | ANNE ARUNDEL | Youth Trip. Gambrills State Park. Richard Heise. |
| | 21 | MONTGOMERY | Trip. Blackwater Refuge. Visitors Center, 9:30 a.m. |
| | 21 | BALTIMORE | Trip. Perry Pt. and Rock Run. R. Jones, D. Hackman. |
| | 22 | WICOMICO | Regular Meeting. Bird Identification by C. S. Robbins. |
| | 23 | PATUXENT | Meeting. Outermost Parts of the World by David Bridge. |
| | 27 | WICOMICO | Trip. Chincoteague Refuge. Charles Vaughn. 9:30 a.m. |
| | 28 | FREDERICK | Trip. Baker Park and Braddock. 2 p.m. |
| Dec. | 1 | KENT | Regular Meeting. Winter Birds by Chandler S. Robbins. |

- Dec. 2 FREDERICK Annual Dinner Meeting. Shore and Water Birds. Robbins.
 3 BALTIMORE Audubon Film. The everglades by William A. Anderson.
 3 ANNE ARUNDEL Monthly Meeting. Duck Identification by D. Hackman.
 4 MONTGOMERY Trip. Manassas Battlefield Park. Chuck Cremeans.
 4-6 BALTIMORE Trip. Nags Head, N. C. Mr. & Mrs. T. H. C. Slaughter.
 11 CAROLINE Trip. Banding demonstration at the Ungers, Federalsburg.
 11 HARFORD Trip. Perry Point.
 11 ANNE ARUNDEL Trip. Sandy Pt. State Park. Gene Levitt.
 11 BALTIMORE Trip. Sandy Pt. and Kent Is. Mr. & Mrs. John Poteet.
 16 MONTGOMERY Monthly Meeting. Members Night (slides and talks).

CHRISTMAS COUNTS

- 18 Triadelphia Reservoir. Contact Danny Bystrak (672-4871).
 18 Rock Run, Harford & Cecil Cos. Dr. Edgar E. Folk (642-6591).
 18 Allegany County. James F. Paulus (395-5178), C. Ferguson (729-3503)
 19 Salisbury, Wicomico County. Charles Vaughn (742-7221).
 19 Lower Kent County. Contact G. L. Gardner (778-3193).
 19 St. Michaels, Talbot County. Jan Reese (745-2261).
 20? Garrett County. Mrs. Wm. Pope (334-4908), D. Bystrak (672-4871).
 26 Baltimore. Contact David Holmes (669-5760).
 26 Annapolis and Gibson Island. Prof. Harold Wierenga (268-1674).
 26 Catoctin Mountain, Frederick-Washington Cos. J. Richards (447-4006)
 26 Point Lookout. So. Md. Audubon Soc., Edward H. Schell (645-4183).
 28 Chincoteague National Wildlife Refuge, Va. Fred Scott (282-2666).
 29 Ocean City. C. S. Robbins (home 725-1176, office 776-4880).
 30 Crisfield incl. Irish Grove Sanctuary. Charles Vaughn (742-7221).
 31 Southern Dorchester County (Blackwater Refuge). C. S. Robbins.
 Jan. 2 Seneca, Md.-Va. Dr. J. William Oberman (202-333-6315).
 4 KENT Audubon Film, Exploring Big Bend by Charles Hotchkiss;
 Audubon Films in Fine Arts Bldg., Washington Col. 7:30.
 6 FREDERICK Meeting. Minerals of Frederick County by T. Kerns.
 7 HARFORD Dinner Meeting at Churchville Presbyterian Church.
 7 ANNE ARUNDEL Monthly Meeting. Living with Nature by Dr. Walter
 S. Boardman. County Library, 8 p.m.
 10 CAROLINE Meeting. Soil Conservation Activities. Fed. Bldg. 7:30.
 11 BALTIMORE Meeting. Lecture by Mrs. E. Worthley. Cylburn, 8 p.m.
 15 ANNE ARUNDEL Trip. Holly Beach Farm. E. Wilson. Meet Anglers, 8 a.m.
 17 TALBOT Audubon Film, Easton High School, Mecklenburg, 8 p.m.
 19 ALLEGANY Meeting. Waterfowl Slide Lecture by Dr. Joseph A.
 Chapman. County Board of Education Bldg., 7:30 p.m.
 20 MONTGOMERY Meeting. Social Evening.
 21 TALBOT Monthly Meeting. County Library, Easton, 8 p.m.
 22 HARFORD Trip. Rock Run Sanctuary.
 22-23 MONTGOMERY Trip. Blackwater Refuge and Ocean City.
 23 BALTIMORE Covered Dish Supper, Cylburn, 5 p.m. Film on Audubon.
 24 WICOMICO Regular Meeting. Bird Feeders and Food by Charles
 Baker. Asbury Methodist Church, Salisbury, 8 p.m.
 25 PATUXENT Monthly Meeting. St. Philips Church, 6th & Main, Laurel.
 26 ANNE ARUNDEL Trip. Annapolis Feeders. Parole Park Lot (Riva), 9 a.m.
 29 SALISBURY Local Walk. Meet E. Main St. A&P parking lot, 9 a.m.
 29 ANNE ARUNDEL Trip. Rock Run Sanctuary. Pantry Pride. J. Symonds.
 Feb. 2 KENT Regular Meeting. Development of a Nature Center by
 Charles Mohr. [Location not announced] 8 p.m.

- Feb. 3 FREDERICK Meeting. Hummingbirds by Jerry Coates. 7:30 p.m.
 4 ANNE ARUNDEL Meeting. White-winged Gulls by Carl Carlson.
 Anne Arundel County Library, 8 p.m.
 5. MONTGOMERY Trip. Local trip; destination not revealed.
 5-6 BALTIMORE Trip. Eastern Neck Refuge. Mr. & Mrs. T. H. C. Slaughter
 12 ANNE ARUNDEL Trip. Hellen Creek Hemlock Preserve, Calvert County.
 Meet Parole parking lot (Riva Rd. entrance), 7:30 a.m.
 15 ALLEGANY Paid Lecture. Subject and place to be announced.
 15 BALTIMORE Lecture. Food & Feeding Habits. C. Crook, Cylburn, 8p.m.
 17 MONTGOMERY Meeting. Flora and Fauna of Mason Neck by Kathleen
 Klimkiewicz. Perpetual Auditorium, Bethesda, 8 p.m.
 18 CAROLINE Meeting. Recent Western Trips by V.E.Unger, Co.Library.

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